ALPINE SKI[T.M.]



72-00015-001

"ALPINE SKI"™ UPRIGHT
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"ALPINE SKI"™ UPRIGHT

1. GAME SET-UP

A. INTRODUCTION

"ALPINE SKI"™ In Alpine Ski the real enjoyment of skiing is presented by lifelike Down Hill Skiing, Slalom Racing and Ski Jump Competition. The object of the game is to manuever your Skier around snow mobiles, beginning skiers, etc., skillfully enough to gain the highest amount of points and to go on to the Slalom Course and the Jump Competition. The speed of the Skier can be controlled by depressing the Button. Skiing down the slope successfully allows a Player the chance to challenge the Slalom Course. Be careful not to knock down any poles or you will receive a penalty. Completion of the Slalom Course allows your Skier to go on to the Ski Jump. In the Jump Competition, use the Radar found on the upper portion of the screen to maximize the distance of the jump for Bonus Points. Playing time is increased when the Player reaches the specified Bonus Level.

B. GAME INSPECTION

TAITO AMERICA'S CORPORATION'S "ALPINE SKI"™ upright game is ready to play when received. However, careful inspection is necessary to insure your game is in perfect condition. Please verify the following before turning the game on.

* Examine external parts for chips, dents, or broken parts.
* Open the service door and examine the following:
  * Plug-in connectors to make sure they are firmly seated.
  * Speaker
  * Player Controls
  * Printed Circuit Boards making sure there is no damage to the components.
  * Check for loose foreign objects, especially metal objects which may cause electrical problems.
  * Fuses, making sure they are firmly in the holders.
  * Coin Mechanisms

The Video Monitor is properly adjusted before shipping. If there are any adjustments necessary refer to our Video Monitor Manual (72-00016-001).

If problems occur or technical assistance is required, contact our Customer Service Department HOT LINE Toll Free 800-323-0666 (except Illinois). Illinois phone 312 981-1000 X215.

POWER REQUIREMENTS

TAITO AMERICA CORPORATION'S "ALPINE SKI"™ upright game is shipped ready for operation at 120VAC, 60Hz with a power consumption of approximately 250 Watts.

CAUTION

For safe operation it is recommended the cabinet be grounded. This game is equipped with a three conductor power cable. The third conductor is the ground conductor and when the cable is plugged into an appropriate receptable, the game is grounded. The offset pin on the power cable's three-prong connector is the ground connection.

LOCATION SPACE REQUIREMENTS

Depth - 35″ (87.5cm)
Width - 24″ (61cm)
Height - 68″ (171cm)
Weight - 300 lbs.
(Packaged Weight)

C. GAME INSTALLATION

The following precautions should be followed when installing the game.

* Avoid rough handling of the game, the picture tube is fragile.
* Install the game on a level surface.
* Avoid installing the game where it may receive excessive sunlight or heat, to prevent the game from rising internal temperature.
* Do not install in a damp or dusty location.
* For a short time after connecting the power to the game, the picture may be temporarily distorted.

D. DIP SWITCH AND VOLUME CONTROL SETTINGS

Dip Switch A

		1	2	3	4	5	6	7	8
Bonus Points for	500-1500	ON	ON						
Successful Jump	800-2000	OFF	ON						
	1000-2500	ON	OFF	N					
	2000-4000	OFF	OFF	O					
Game Time	1:00			T	ON	ON			
(Minutes)	1:30				OFF	ON			
	2:00			U	ON	OFF			
	2:30			S	OFF	OFF			
Test	Test			E			ON		
	Normal			D			OFF		
Screen Inversion	1P Side							ON	
	2P							OFF	
Game Style	Table								ON
	Upright								OFF

Dip Switch B

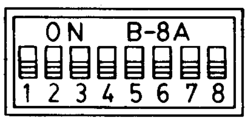
<table>
<tr><th></th><th colspan="4">1 - WAY</th><th colspan="4">2 - WAY</th></tr>
<tr><th>Play Pricing</th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th></tr>
<tr><td>1 Coin - 1 Play</td><td>ON</td><td rowspan="2">ON</td><td rowspan="4">ON</td><td rowspan="8">ON</td><td>ON</td><td rowspan="2">ON</td><td rowspan="4">ON</td><td rowspan="8">ON</td></tr>
<tr><td>1 Coin - 2 Play</td><td>OFF</td><td>OFF</td></tr>
<tr><td>1 Coin - 3 Play</td><td>ON</td><td rowspan="2">OFF</td><td>ON</td><td rowspan="2">OFF</td></tr>
<tr><td>1 Coin - 4 Play</td><td>OFF</td><td>OFF</td></tr>
<tr><td>1 Coin - 5 Play</td><td>ON</td><td rowspan="2">ON</td><td rowspan="4">OFF</td><td>ON</td><td rowspan="2">ON</td><td rowspan="4">OFF</td></tr>
<tr><td>1 Coin - 6 Play</td><td>OFF</td><td>OFF</td></tr>
<tr><td>1 Coin - 7 Play</td><td>ON</td><td rowspan="2">OFF</td><td>ON</td><td rowspan="2">OFF</td></tr>
<tr><td>1 Coin - 8 Play</td><td>OFF</td><td>OFF</td></tr>
<tr><td>2 Coin - 1 Play</td><td>ON</td><td rowspan="2">ON</td><td rowspan="4">ON</td><td rowspan="8">OFF</td><td>ON</td><td rowspan="2">ON</td><td rowspan="4">ON</td><td rowspan="8">OFF</td></tr>
<tr><td>3 Coin - 1 Play</td><td>OFF</td><td>OFF</td></tr>
<tr><td>4 Coin - 1 Play</td><td>ON</td><td rowspan="2">OFF</td><td>ON</td><td rowspan="2">OFF</td></tr>
<tr><td>5 Coin - 1 Play</td><td>OFF</td><td>OFF</td></tr>
<tr><td>6 Coin - 1 Play</td><td>ON</td><td rowspan="2">ON</td><td rowspan="4">OFF</td><td>ON</td><td rowspan="2">ON</td><td rowspan="4">OFF</td></tr>
<tr><td>7 Coin - 1 Play</td><td>OFF</td><td>OFF</td></tr>
<tr><td>8 Coin - 1 Play</td><td>ON</td><td rowspan="2">OFF</td><td>ON</td><td rowspan="2">OFF</td></tr>
<tr><td>9 Coin - 1 Play</td><td>OFF</td><td>OFF</td></tr>
</table>

Dip Switch C

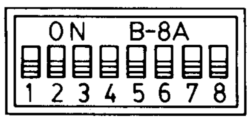
		1	2	3	4	5	6	7	8
Points to qualify	10,000 pts.	ON	ON						
For first game	15,000 pts.	OFF	ON						
Time extension	20,000 pts.	ON	OFF						
	25,000 pts.	OFF	OFF						
Points to qualify	5,000 pts.			ON	ON	ON			
For additional	6,000 pts.			OFF	ON	ON			
2nd game time	7,000 pts.			ON	OFF	ON			
Extension	8,000 pts.			OFF	OFF	ON			
	9,000 pts.			ON	ON	OFF			
	10,000 pts.			OFF	ON	OFF			
	11,000 pts.			ON	OFF	OFF			
	12,000 pts.			OFF	OFF	OFF			
Display of Year	YES						OFF		
	NO						ON		
No Hit	No Hit							OFF	
	Normal							ON	
Coin System	2 Way								OFF
	1 Way								ON

OPTION SWITCHES
FIGURE 1

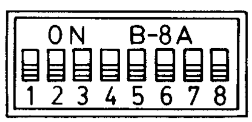
SWA



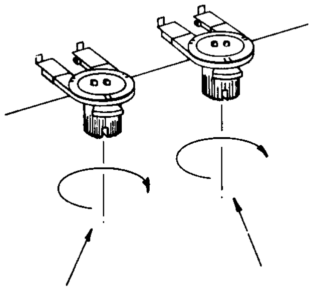
SWB



SWC



VOLUME CONTROL LOCATIONS
FIGURE 2



VOLUME CONTROL SETTING

The Volume increases by turning the potentiometer as indicated in Figure 2.

2. MAINTENANCE

All games require a certain amount of maintenance to keep them in good condition. A periodic check of mechanical controls would be beneficial to guarantee your game will be profitable.

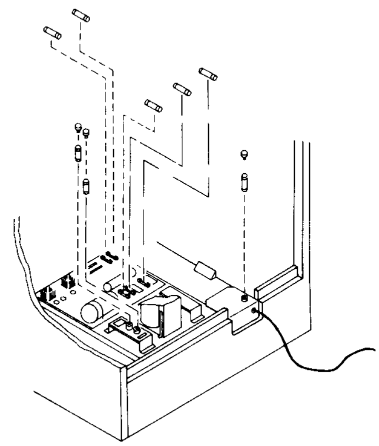
A. CLEANING

The exterior of the game, all metal parts and all plastic parts can be cleaned with an non-abrasive cleanser. Caution should be used when cleaning the plastic, a dry cloth can cause scratches and result in a foggy appearance.

B. FUSE REPLACEMENT

This game contains 8 fuses. Seven of these fuses can be found on the Power Supply Assembly, five (5) are on the PCB and two (2) are on the Power Supply Bracket. One (1) is located at the bracket where the AC line cord comes into the cabinet. See Figure ( ) for location of these fuses.

FUSE REPLACEMENT
FIGURE 3



C. VIDEO MONITOR REMOVAL

If you need to remove the Video Monitor, follow the Instructions listed below.

CAUTION

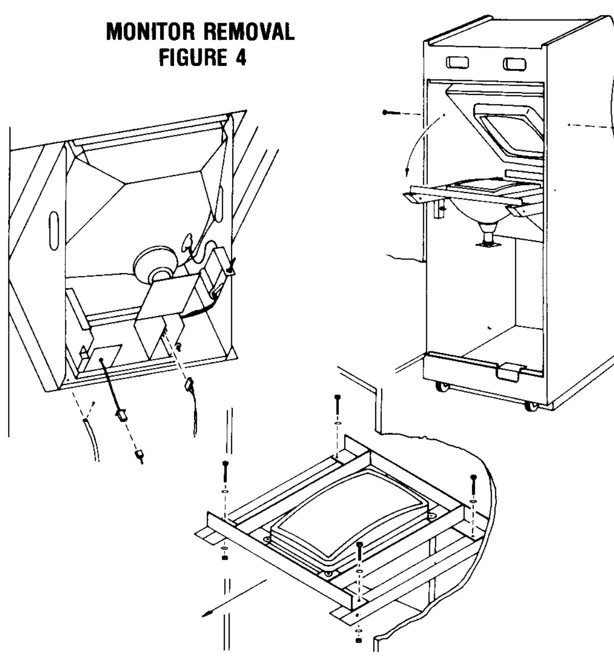
It is recommended the game be left disconnected for at least one hour before removing the Video Monitor. This will probably discharge the Video Tube but EXTREME CAUTION is still necessary.

* Disconnect power from the line voltage.
* Disconnect the Monitor cable connector.
* Remove the wire cable clamp.
* Take out the two side bolts, one on each side of the cabinet.
* Remove the four mounting bolts and disconnect the green ground wire.
* Slide the Monitor out by pulling the Monitor toward you.

CAUTION

Use extreme caution and do not touch electrical parts of the Monitor Yoke area with your hands or with any metal object in your hands! High voltages may exist in any Monitor, even with power disconnected.

MONITOR REMOVAL
FIGURE 4



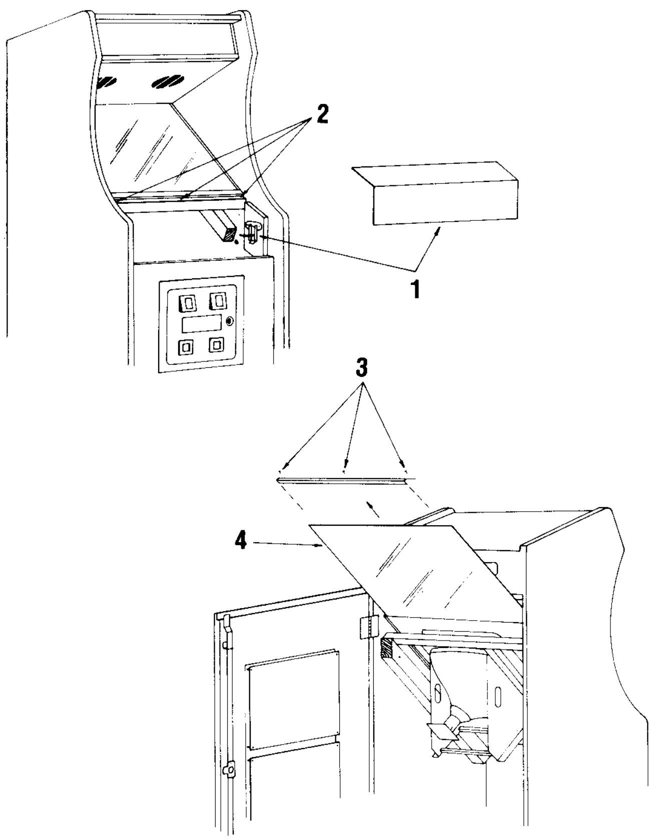
D. VIDEO MONITOR ADJUSTMENTS

TAITO AMERICA CORPORATION presently uses either a Wells-Gardner or an Electrohome 19" color monitor in the "ALPINE SKI"™ game. Refer to Monitor Manual (72-00016-001) for your specific Video Monitor. Be sure to heed all the WARNINGS AND CAUTION INSTRUCTIONS provided before repairing or replacing your Video Monitor.

E. COVER GLASS REMOVAL

To remove the Cover Glass follow the Instructions listed below:
1. Remove the control Panel.
2. Loosen three (3) screws on the Cover Glass, front bracket.
3. Open Service Door and remove the (Rear) Cover Glass Bracket.
4. Slide glass out through the Service Door.

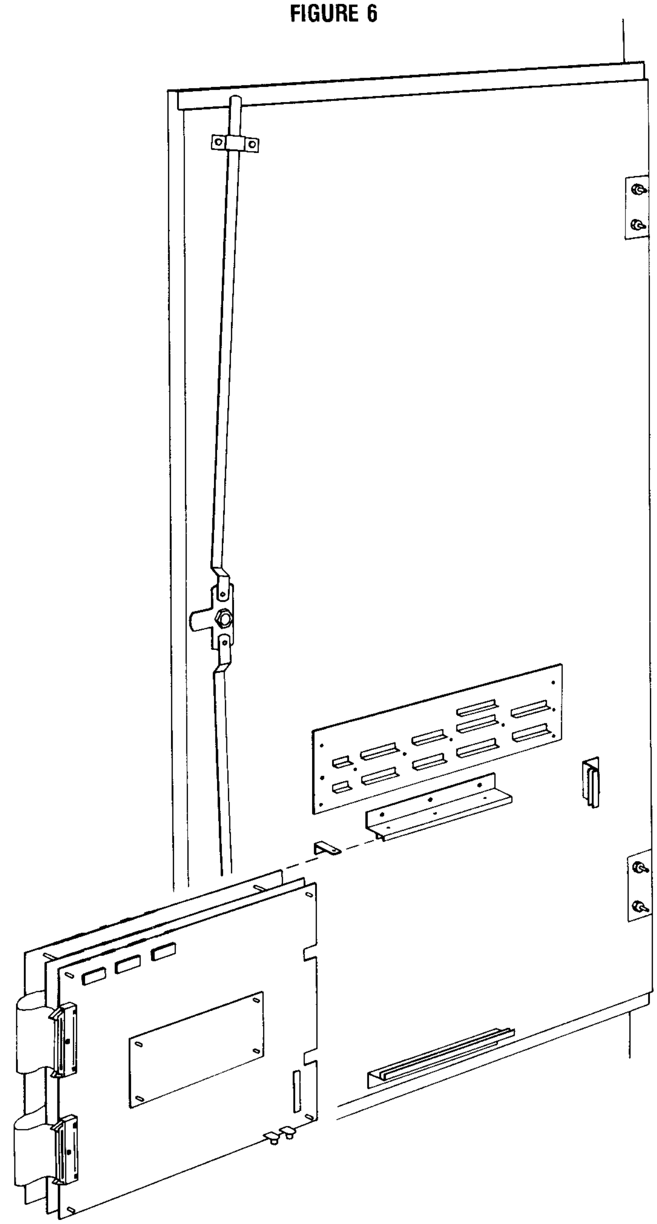
COVER GLASS REMOVAL
FIGURE 5



F. PRINTED CIRCUIT BOARD REPLACEMENT

You may wish to remove the "ALPINE SKI"™ Printed Circuit Boards for servicing. Refer to Figure 6.
The "ALPINE SKI" Printed Circuit Boards are located on the inside of the Rear Service Door for easy access.
To remove the boards the following steps should be followed:
1. Open the rear service door, the power will automatically be removed by the Interlock Switch located on the inside of the door frame.
2. Disconnect the connector G, H, and T from the boards.
3. Loosen and turn the Stop Bracket and pull the boards toward you out of the board guides.

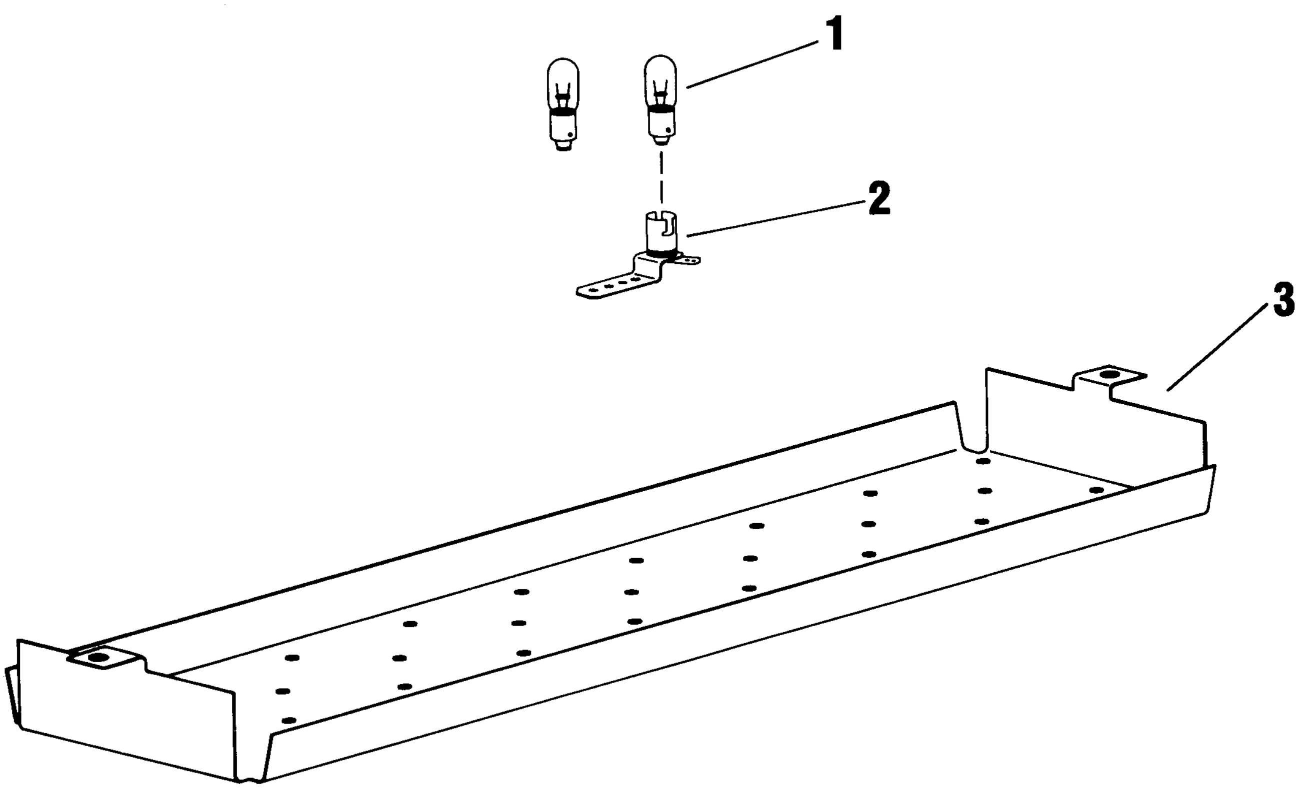
PRINTED CIRCUIT BOARD REPLACEMENT
FIGURE 6



INCANDESCENT PANEL

FIGURE 7

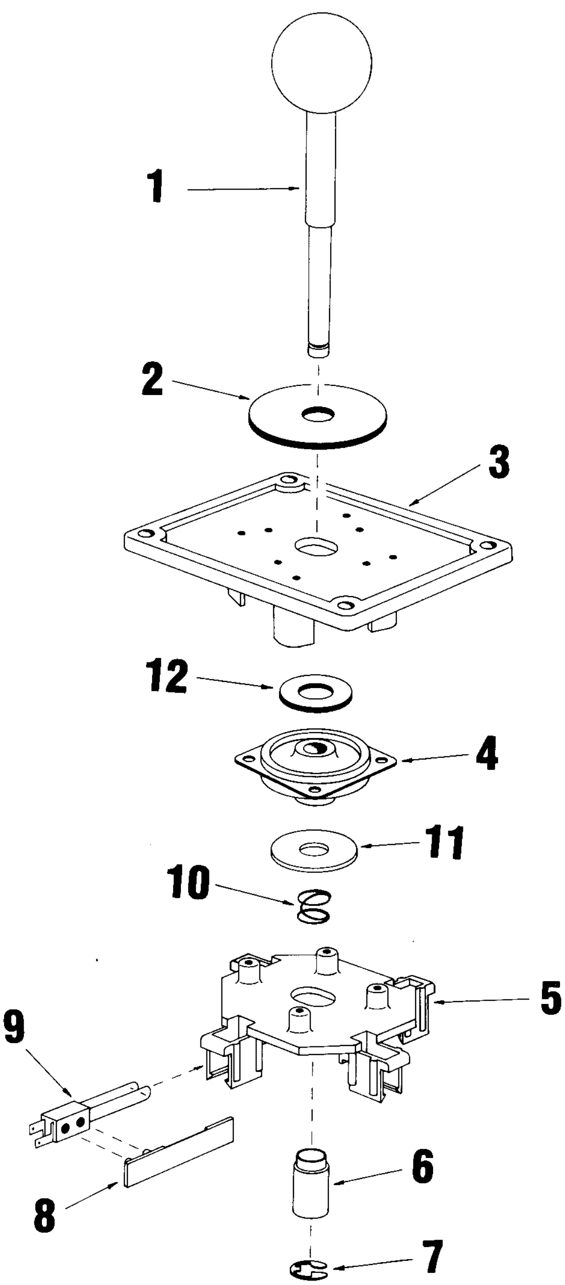
ITEM	TAITO PART NO.	DESCRIPTION
1	27-00006-001	Lamp #47
2	26B00009-001	Bayonet Base Socket
3	26B00009-001	Marquee Lighting Plate



2-WAY JOYSTICK

FIGURE 8

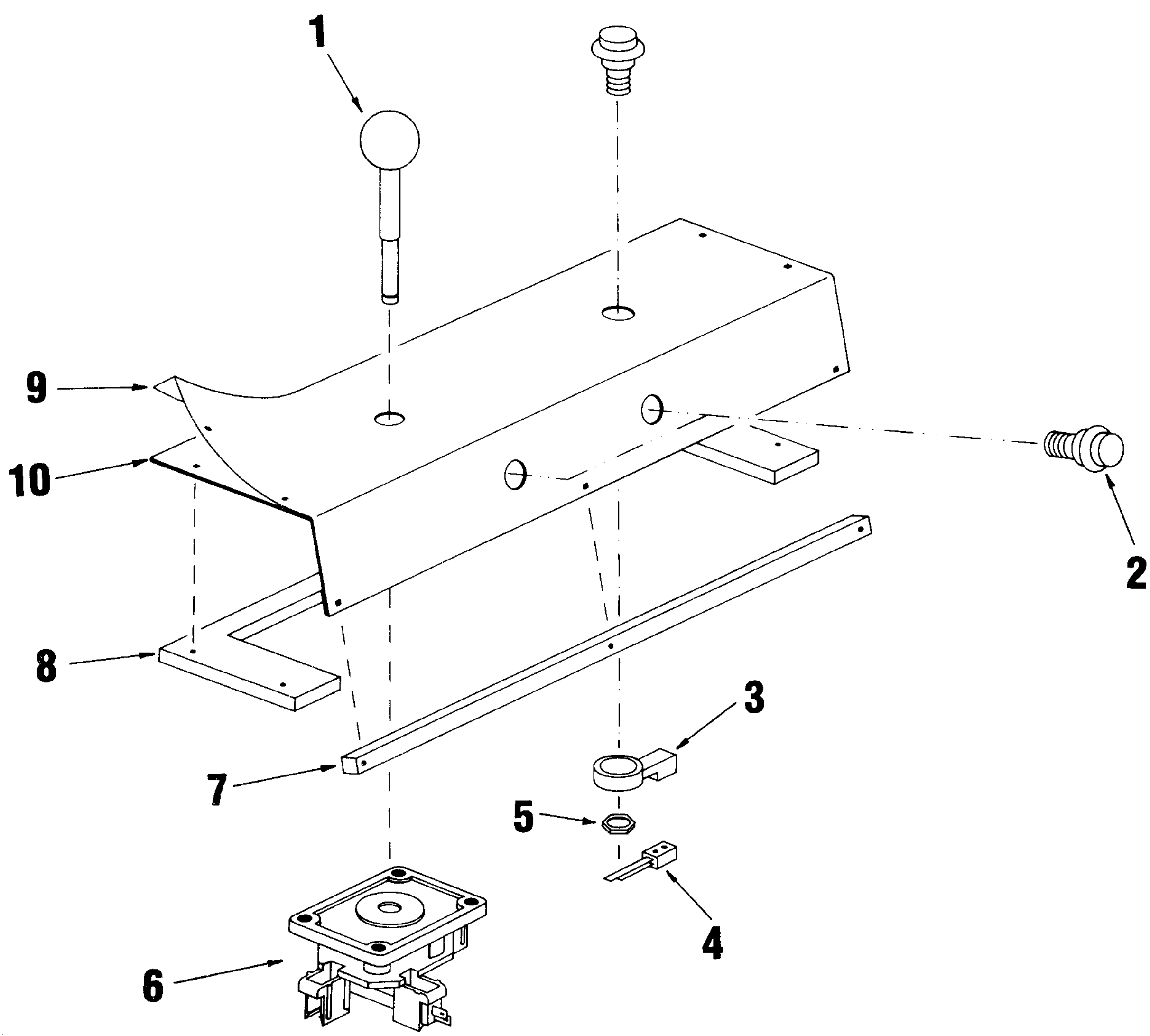
ITEM	TAITO PART NO.	DESCRIPTION
1	63B00071-001	Ball & Shaft
2	63A00074-001	Mask
3	63C00069-001	Mounting Plate
4	62C00004-001	Shock Mount Pad
5	63C00070-001	Switch Plate
6	63A00075-001	Actuator
7	59B00020-017	"E" Ring
8	63A00072-001	Switch Spacer
9	29B00033-001	Leaf Switch
10	58A00006-001	Spring
11	61A00227-001	Spacer
12	63A00073-001	Spacer, Plastic



CONTROL PANEL

FIGURE 9

ITEM	TAITO PART NO.	DESCRIPTION
1	63B00031-004	Ball & Shaft
2	63B00024-001	Push Button White
3	63-00025-001	Switch Support
4	29B00020-001	Switch, Push Button
5	54A07001-008	Nut, Stamped ⅝-11
6	63D00067-001	2-Way Control
7	42B00108-001	Cleate Wood
8	42D00017-001	Control Panel Wood
9	63D00066-001	Lexan Decal
10	07M00224-001	Control Panel, Metal



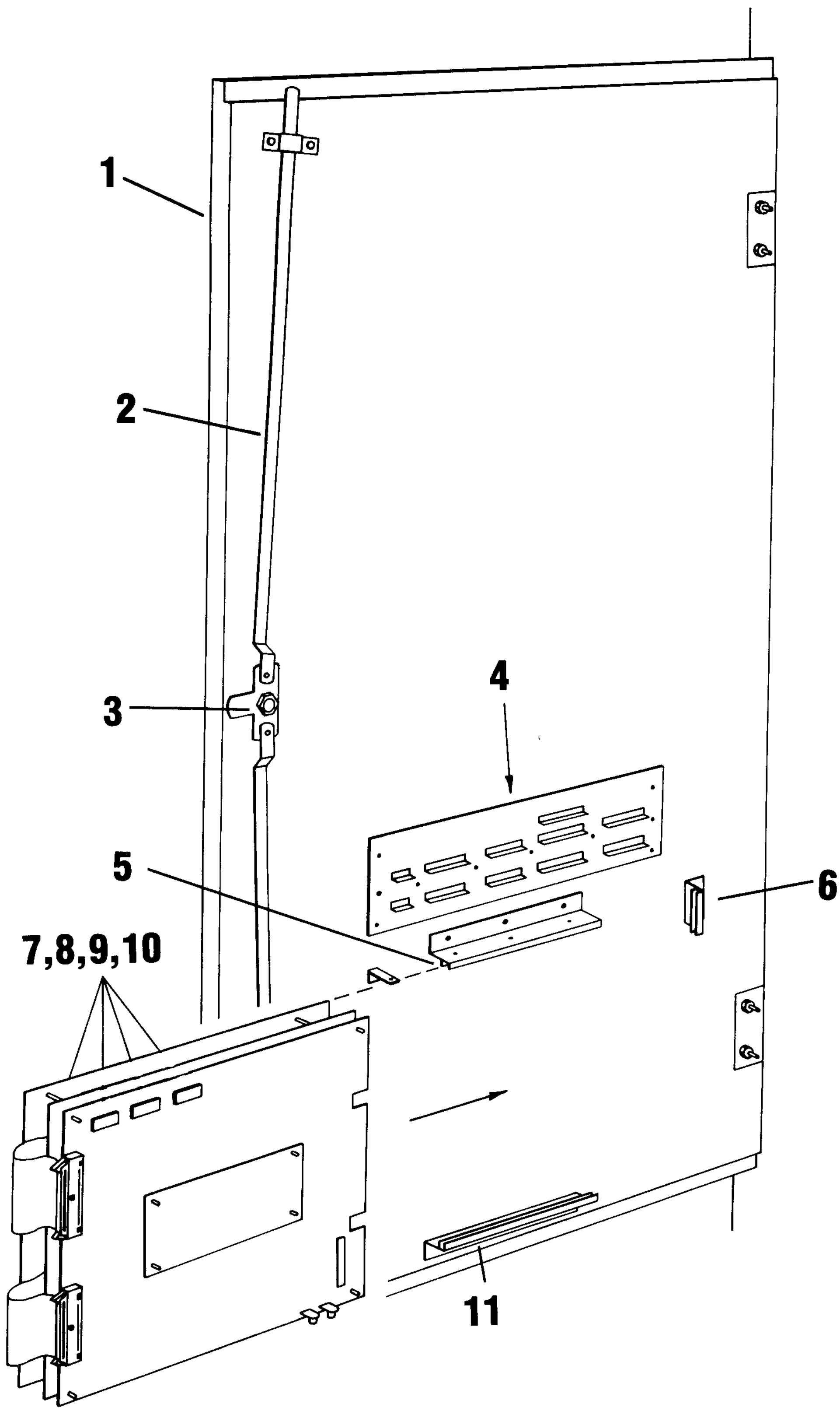
DOOR ASSEMBLY

FIGURE 10

ITEM	TAITO PART NO.	DESCRIPTION
1	42D00128-001	Rear Door
2	61A00111-001	Bracket, Lock Rod
3	04-00037-002	Lock Kit
4	08-00017-001	Filter P.C.B.
5	63B00077-001	Board Guide
6	61A00014-001	"L" Bracket
7	08-00028-002	Game P.C.B.
8	08-00028-003	CPU P.C.B.
9	08-00028-004	Video P.C.B.
10	08-00028-005	ROM P.C.B.
11	61-00228-001	Bracket, P.C. Board

DOOR ASSEMBLY

FIGURE 10



COIN DOOR

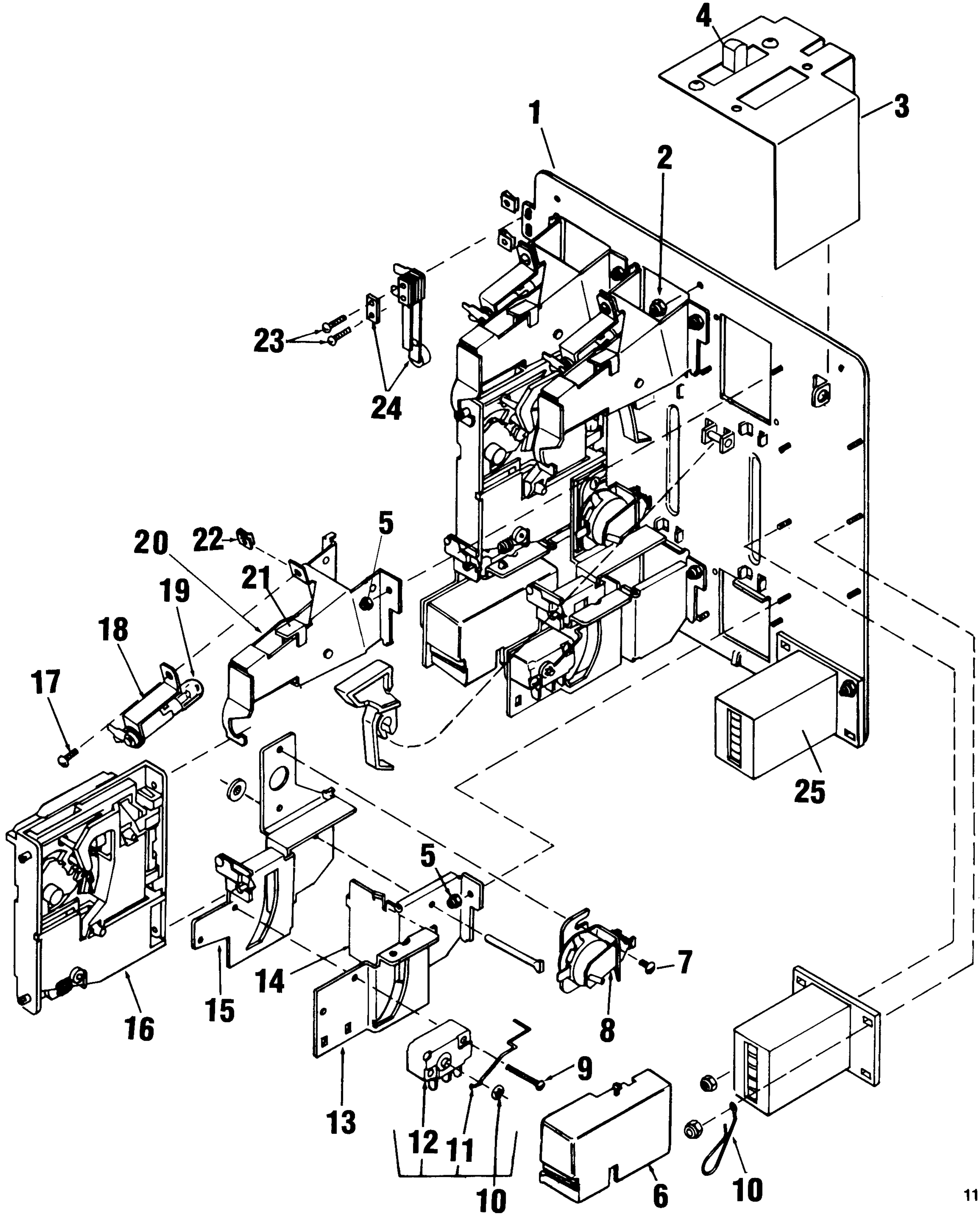
FIGURE 11

ITEM	TAITO PART NO.	DESCRIPTION	REFERENCE
1	07-00027-001	Inner Panel With Levers Sub Assembly	404429
2	54-03013-001	Nut #8-32	400-8
*	09-00017-001	Custom Harness Assembly (SHL Coin)	
*	09-00017-002	Custom Harness Assembly (Dual Coin)	
3	61B00113-001	Service Switch Bracket	
4	29-00022-001	Service Switch	
5	54-03011-001	Nut #4-40	
6	63-00014-001	Switch Cover	904762
7	51-02052-001	Screw #6-32 x 3/16 SS ph	100-6-3
8	23-00001-001	C.R.E.M. Coil Assembly	404354
9	51-02052-001	Screw #6-32 x 3/16 SS ph	100-4-12
10	59-00019-001	Retainer	900651
11	28-00029-001	Silver Switch Wire for U.S. 25¢	904710-1
12	29-00007-001	Switch	904845
13	61-00044-001	Coin Chute	904701
14	61-00045-001	Coin Return Box	904598
15	61-00025-001	Switch & C.R.E.M. Coil Bracket	404428
16	59-00018-001	25¢ Acceptor	5301-10
17	51-02051-006	Screw 4-40 x 3/8 SS ph	110-4-6
18	27-00003-001	Miniature Bayonet Base Lamp	904717
*	26-00006-001	Lamp Socket	
19	27-00003-001	#47 Lamp (6.3 Volt)	904716
20	61-00048-001	Coin Inlet Chute	904418
21	61-00047-001	Right Half of Coin Inlet Chute	904594
22	54-00001-001	"U" Type Fastener	904712
23	51-02051-006	Screw 4-40 x ½ SS ph	116-4-8
24	29-00006-001	Slam Switch Assembly	904704
25	998325	Coin Meters	

*Item not shown on drawing.

COIN DOOR

FIGURE 11



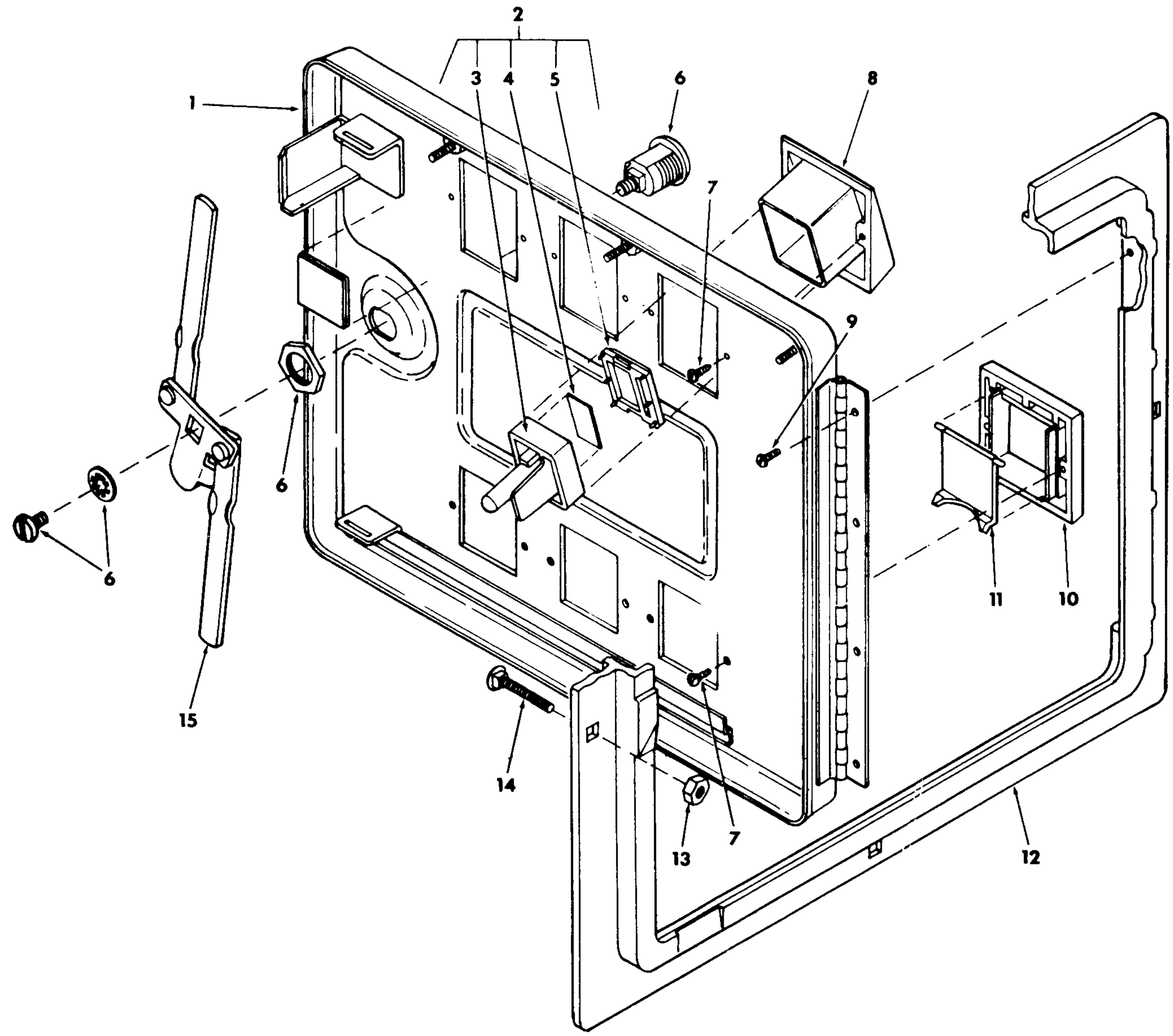
COIN DOOR

FIGURE 12

ITEM	TAITO PART NO.	DESCRIPTION	REFERENCE
1	61-00042-001	Coin Door Only (2 Coin)	404341
2	07-00023-001	Coin Return Button Assembly For U.S. 25¢ Coin	404348-1
3	63-00015-001	Coin Return Button	904591
4	79-50004-001	U.S. 25¢ Price Decal	904703
5	63-00016-001	Coin Return Button Cover for U.S. 25¢ Coin	
6	07-00025-001	Lock Assembly	904707-1
6A	07-00025-001	Lock Assembly	904707-1
7	51-01051-003	Screw #4 x 5/16 SL ph Type B	345-4-5
7A	51-01051-003	Screw #4 x 5/16 SL ph Type B	345-4-5
8	63-00011-001	Coin Button Housing	904588
9	51-02051-002	Screw #4-40 x ¼ SL ph	325-4-4
10	63-00012-001	Coin Return Bezel	904590
11	63-00013-001	Coin Return Cover	904599
12	61-00040-001	Coin Door Frame 11⅝ x 13⅜	904581
		Mounts in a 10⅜ x 12 3/16 Opening	
13	54-01005-001	Hex Nut ¼-20	406-416
14	51A03003-113	Carriage Bolt	904734
15	07-00026-001	Lock Arm Assembly	404357

COIN DOOR

FIGURE 12



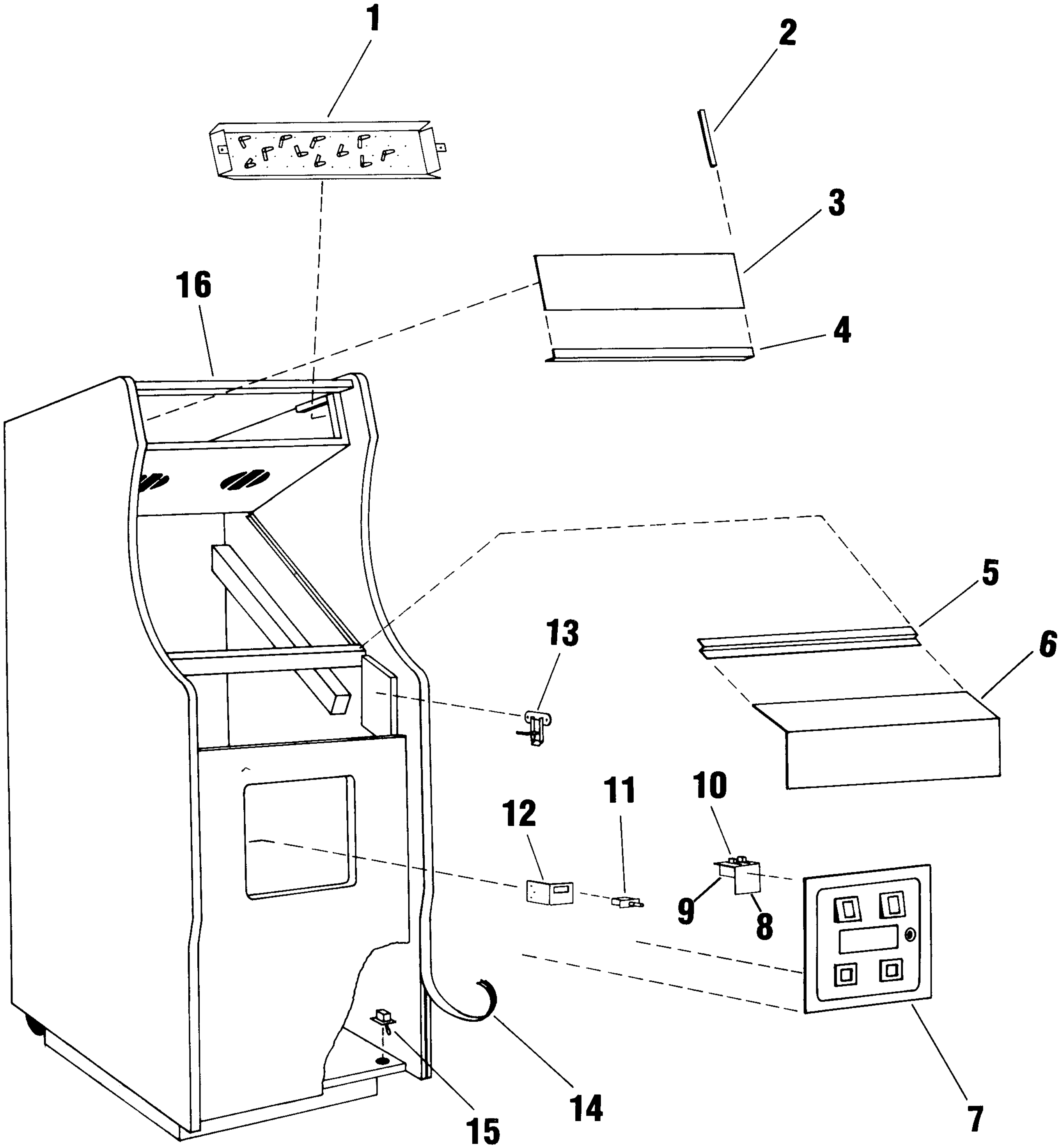
CABINET ASSEMBLY UPRIGHT FRONT VIEW

FIGURE 13

ITEM	TAITO PART NO.	DESCRIPTION
1	07M00055-001	Incandescent Panel
2	63B00006-001	"U" Channel Bracket
3	47M00012-004	Marquee
4	61C00115-001	Marquee Retaining Bracket
5	61D00012-001	Lower Cover Glass Bracket
6	07M00121-001	Control Panel Assembly
7	07-00114-001	Coin Door
8	61B00113-001	Switch Bracket
9	07M00118-001	Service Switch Assembly
10	29-00022-001	Slide, Center Return Switch
11	29B00015-001	Interlock Switch
12	61C00201-001	Interlock Switch Bracket
13	59-00008-001	Latching Clamp
14	63B00002-004	"T" Molding
15	29A00023-001	Power ON/OFF Switch
16	41D00009-004	Finish Cabinet

CABINET ASSEMBLY UPRIGHT FRONT VIEW

FIGURE 13



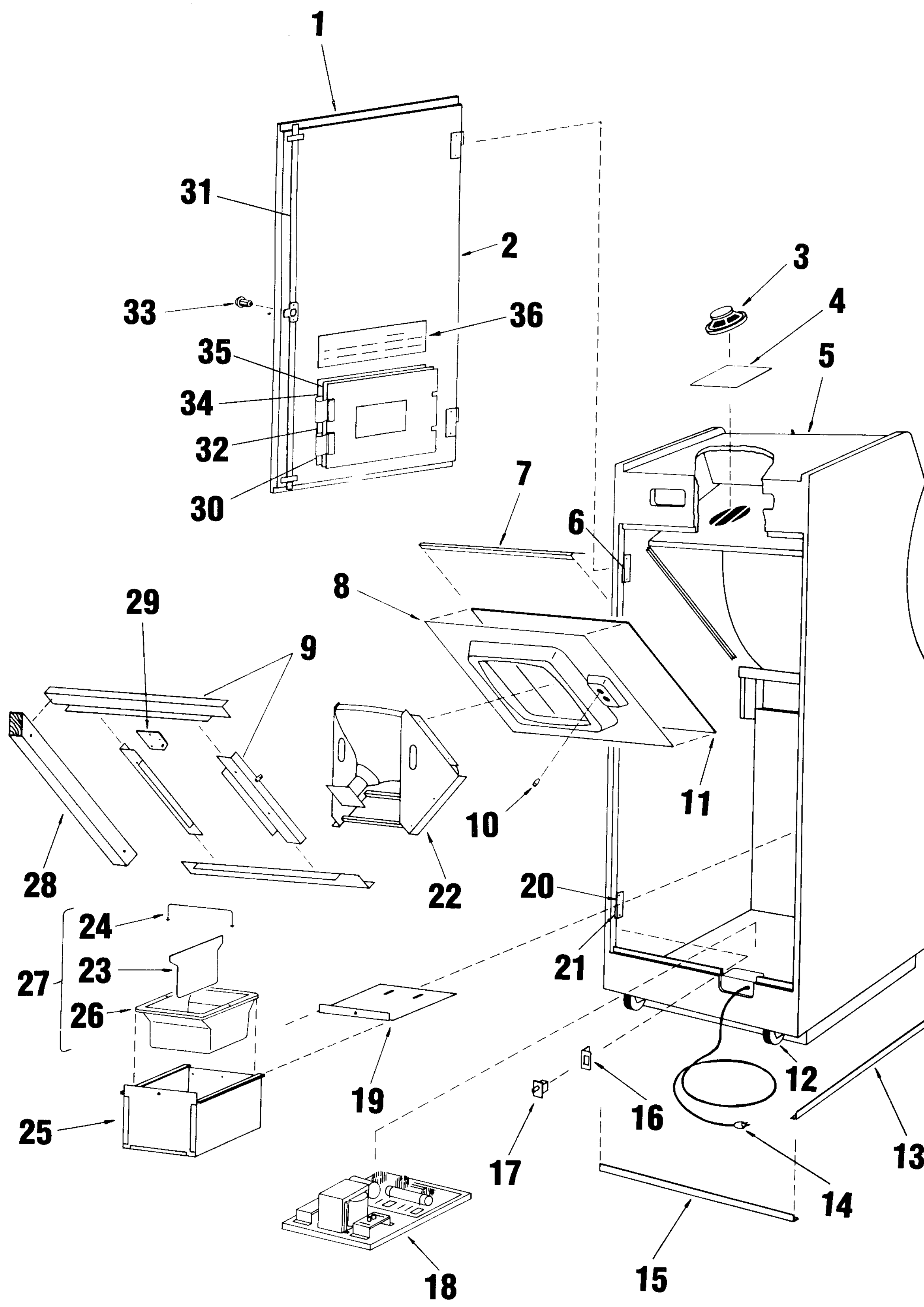
CABINET ASSEMBLY UPRIGHT REAR VIEW

FIGURE 14

ITEM	TAITO PART NO.	DESCRIPTION
1	42D00069-001	Door & Board Mounting Assembly
2	42D00016-001	Door Panel
3	21C00003-001	Speaker 6″ round
4	61B00027-001	Speaker Grill
5	41D00009-004	Finish Cabinet
6	61B00057-001	Leaf Hinge
7	61C00006-001	Upper Cover Bracket
8	63C00035-001	Monitor Shroud
9	61C00080-001	Monitor Mounting Bracket
10	27-00006-001	#47 Bulb, Lighted Instr.
11	47M00013-004	Cover Glass
12	44C00001-001	Wheels
13	63C00005-004	"Leaf" Molding
14	07M00042-001	A/C Line Cord
15	63C00005-022	"L" Molding
16	61B00030-002	Interlock Bracket
17	29B00015-001	Interlock Switch
18	07M00039-001	Power Supply
19	61C00054-001	Cash Box Lid
20	61B00056-001	Leaf Hinge
21	61A00055-001	Hinge Pin
22	31-00006-001	19″ Color Monitor
23	63-00019-001	Cash Tray Separator
24	61-00039-001	Cash Tray Handle
25	61C00060-001	Cash Box
26	63-00010-001	Cash Tray (Only)
27	07M00054-001	Cash Tray Assembly
28	42C00013-001	Monitor Support Cleat
29	61C00086-001	Corner Bracket
30	08-00028-002	Game P.C.B.
31	60B00142-001	Lock Rod Assembly
32	08-00028-004	Video P.C.B.
33	04M00037-002	Lock Kit
34	08-00028-003	CPU P.C.B.
35	08-00028-005	ROM P.C.B.
36	08-00017-001	Filter P.C.B.

CABINET ASSEMBLY UPRIGHT REAR VIEW

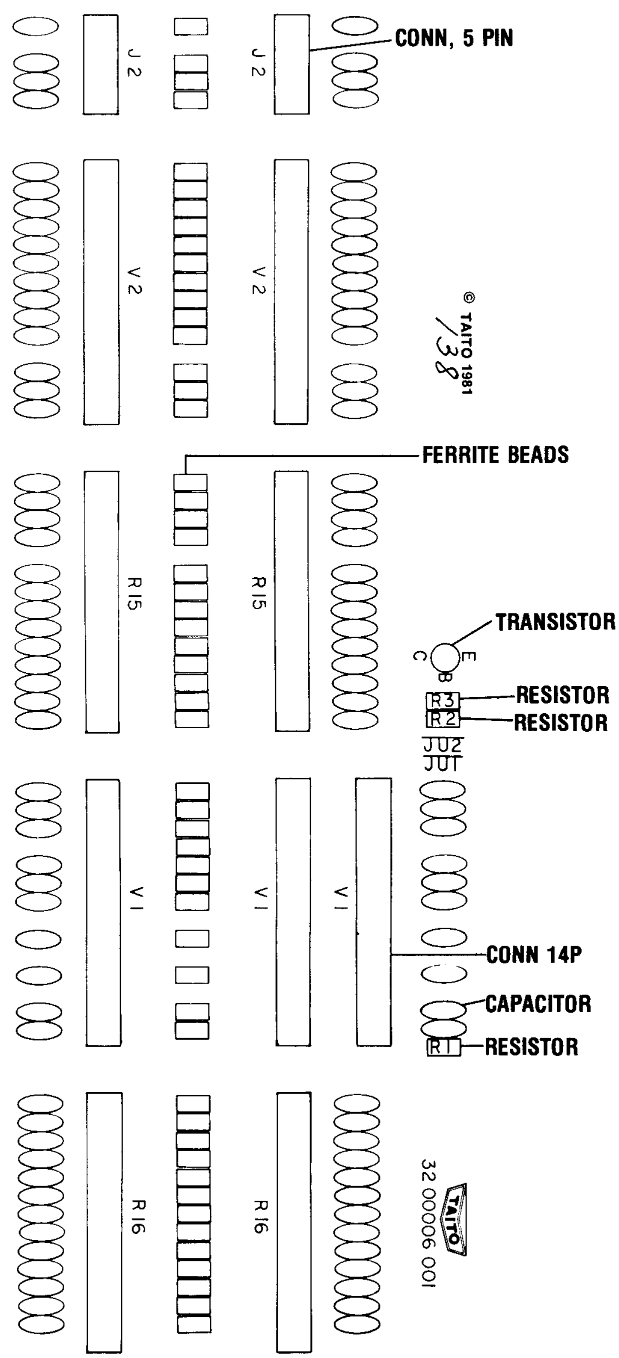
FIGURE 14



FILTER BOARD

FIGURE 15

ITEM	TAITO PART NO.	DESCRIPTION	QUANITY
1	12-10003-471	Cap, 470pf ± 10% Axial Lead	74
2	17-00001-001	Ferrite Bead Assembly	42
3	25-00002-014	Connector 14P	9
4	25-00002-005	Connector 5P	2
5	14-23904-001	Transistor NPN 2N3904	1
6	11-00001-102	Resistor 1K ohm ¼W	1
7	11-00001-332	Resistor 3.3F ohm ¼W	2
8	63B00068-001	Stand Off	6



POWER SUPPLY

FIGURE 16

SYM	TAITO PART NO.	DESCRIPTION
R1	11-00001-102	Resistor 1.0K 5% ¼W 5%
R2	11-00001-512	Resistor 5.1K ¼W 5%
R3	11-00001-183	Resistor 18K ¼W 5%
R4	11-00001-224	Resistor 220K ¼W 5%
R5	11-00001-472	Resistor 4.7K ¼W 5%
R6	11-00001-222	Resistor 2.2K ¼W 5%
R7	11-10001-101	Resistor 100 ¼W 5%
R8	11-00001-102	Resistor 10K ¼W 5%
R9	11-00001-472	Resistor 4.7K ¼W 5%
R10	11-10001-101	Resistor 100 ½W 5%
R11	11-30001-015	Resistor .15 4W 5%
R12	11-30001-015	Resistor .15 4W 5%
R13	11-00001-472	Resistor 4.7K ¼W 5%
R14	11-00001-222	Resistor 2.2K ¼W 5%
R15	11-00001-222	Resistor 2.2K ¼W 5%
R16	11-60001-252	Pot 2.5K ¼W 20%
R17	11-00001-222	Resistor 2.2K ¼W 5%
R18	11-60001-102	Pot 1.0K ¼W 20%
R19	11-00001-511	Resistor 510 ¼W 5%
R20	11-10001-470	Resistor 47 ½W 5%
R21	11-00001-162	Resistor 1.6K ¼W 5%
R22	11-00001-103	Resistor 10K ¼W 5%
R23	11-00001-472	Resistor 4.7K ¼W 34
R24	11-00001-222	Resistor 2.2K ¼W 5%
R25	11-60001-102	Pot 1.0K ¼W 5%
R26	11-00001-472	Resistor 407K ¼W 5%
R27	11-00001-222	Resistor 2.2K ¼W 5%
R28	11-60001-252	Pot 2.5K ¼W 20%
R29	11-00001-472	Resistor 4.7K ¼W 5%
R30	11-00001-122	Resistor 1.2K ¼W 5%
R31	11-10001-470	Resistor 47 ¼W 5%
R32	11-30001-015	Resistor .15 4W 5%
R33	11-00001-222	Resistor 2.2K ¼W 5%
R34	11-00001-122	Resistor 1.2K ¼W 5%
R35	11-00001-511	Resistor 510 ¼W 5%
R36	11-00001-222	Resistor 2.2K ¼W 5%
R37	11-00001-104	Resistor 100K
R38	11-00001-103	Resistor 10K ¼W 5%
R39	11-00001-224	Resistor 220L ¼W 5%
C1	12-30001-225	Capacitor, Tantalum 2.2uf 25V
C2	12-10004-103	Capacitor, Ceramic .01uf
C3	12-10004-103	Capacitor, Ceramic .01uf
C4	12-30001-105	Capacitor, Tantalum 1.uf 35V

SYM	TAITO PART NO.	DESCRIPTION
C5	12-10001-102	Capacitor, .001uf
C6	12-30001-106	Capacitor, Tantalum 10uf
C7	12-20003-509	Capacitor, Electrolytic 50,000uf
C8	12-30001-105	Capacitor, Tantalum 1.uf 35V
C9	12-20003-209	Capacitor, Electrolytic 20,000uf
C10	12-10001-332	Capacitor, Ceramic .0033uf
C11	12-30001-476	Capacitor, Tantalum 47uf
C12	12-30001-105	Capacitor, Tantalum 1.uf 35V
C13	12-10004-103	Capacitor, Ceramic .01uf
C14	12-10001-102	Capacitor, .001uf
C15	12-30001-476	Capacitor, Tantalum 47uf
C16	12-20002-108	Capacitor, Electrolytic 1,000uf
C17	12-30001-225	Capacitor, Tantalum 2.2uf 25V
C18	12-30001-225	Capacitor, Tantalum 2.2uf 25V
C19	12-30001-105	Capacitor, Tantalum 1.uf 35V
F1	24-00003-010	10A Fuse
F2	24-00003-010	10A Fuse
F3	24-00003-003	Fuse, 2A
F4	24-00003-004	Fuse, 4A
F5	24-00003-004	Fuse, 4A
BR1	13-00100-025	Diode Bridge 25A, 100V
BR2	13-00100-012	Diode Bridge 12A, 100V
BR3	13-00100-002	Diode Bridge 2A, 100V
D1	13-14002-001	Diode IN4002
D2	13-14002-001	Diode IN4002
D3	13-10752-001	Diode, Zener IN752
D4	13-14002-001	Diode IN4002
D5	13-14002-001	Diode IN4002
D6	13-14002-001	Diode IN4002
D7	13-10964-001	Diode, Zener IN964
D8	13-14002-001	Diode IN4002
D9	13-14002-001	Diode IN4002
D10	13-14002-001	Diode IN4002
D11	13-14002-001	Diode IN4002
D12	13-14002-001	Diode IN4002
LED1	13-00001-001	LED (Red)
LED2	13-00001-001	LED (Red)
LED3	13-00001-001	LED (Red)
LED4	13-00001-001	LED (Red)
U1	15-62500-001	Opto Coupler H11AA2
U2	15-50556-001	Timer (Dual) 556
U3	15-50723-001	Voltage Regulator 723
U4	15-50723-001	Voltage Regulator 723

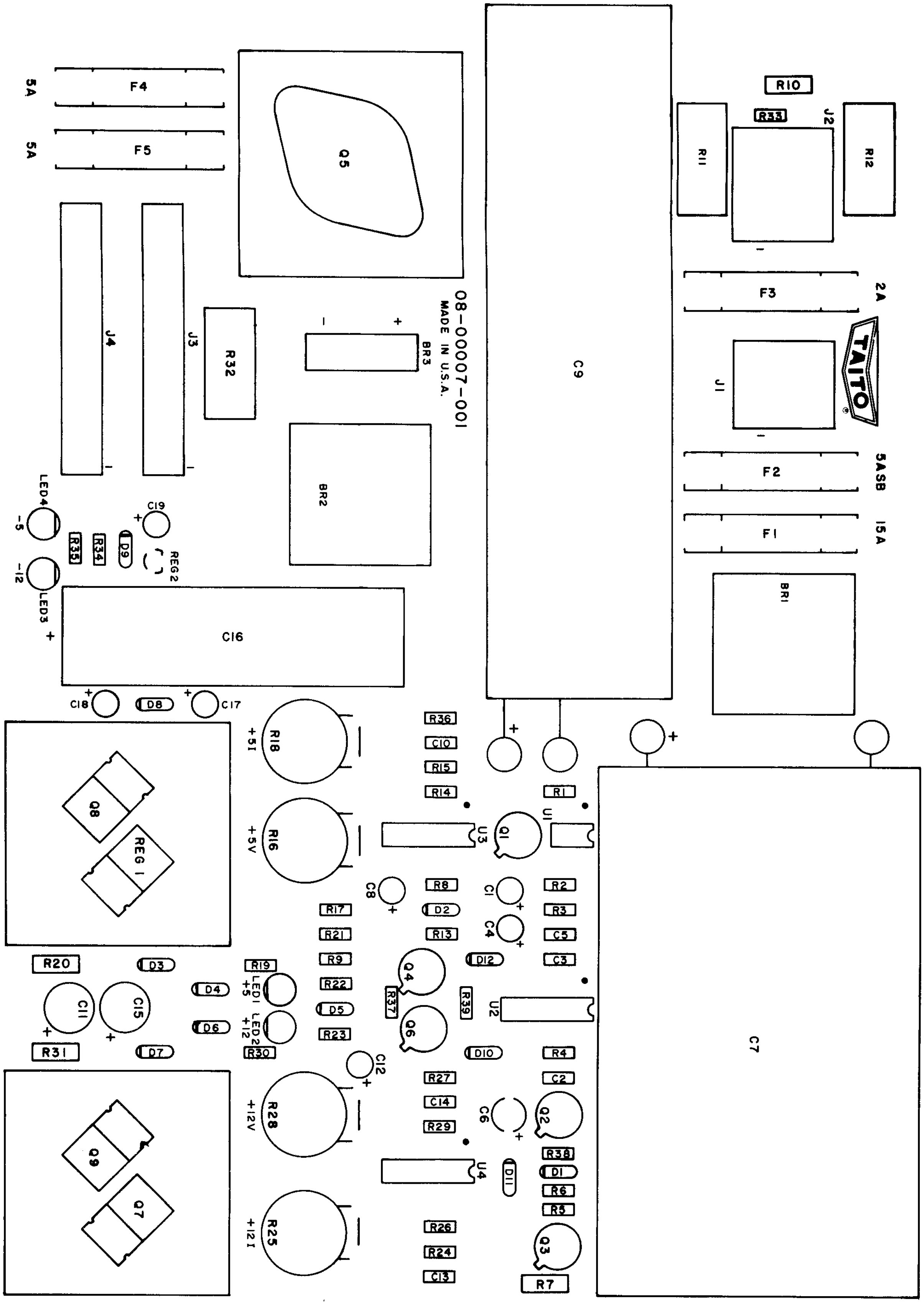
POWER SUPPLY

FIGURE 16

SYM	TAITO PART NO.	DESCRIPTION
REG1	15-57912-001	Voltage Regulator 7912
REG2	15-57905-001	Voltage Regulator 79L05
Q1	14-22905-001	Transistor 2N2905
Q2	14-22905-001	Transistor 2N2905
Q3	14-22905-001	Transistor 2N2905
Q4	14-22905-001	Transistor 2N2905
Q5	14-23055-001	Transistor 2N3055
Q6	14-22905-001	Transistor 2N2905
Q7	14-20030-001	Transistor TIP-30A
Q8	14-26401-001	SCR 2N6401
Q9	14-26401-001	SCR 2N6401
J1	25-00022-006	Connector, 1-380999-0 6Pin
J2	25-00022-008	Connector, 350212-1 8Pin
J3	25-00002-014	Connector, 09-60-1141 14Pin
J4	25-00002-014	Connector, 09-60-1140 14Pin
	24-10001-001	Fuse Clips
	30-00220-002	Heat Sink Dual To-220
	30-00003-001	Heat Sink Single To-3

POWER SUPPLY COMPONENT LAYOUT

FIGURE 16



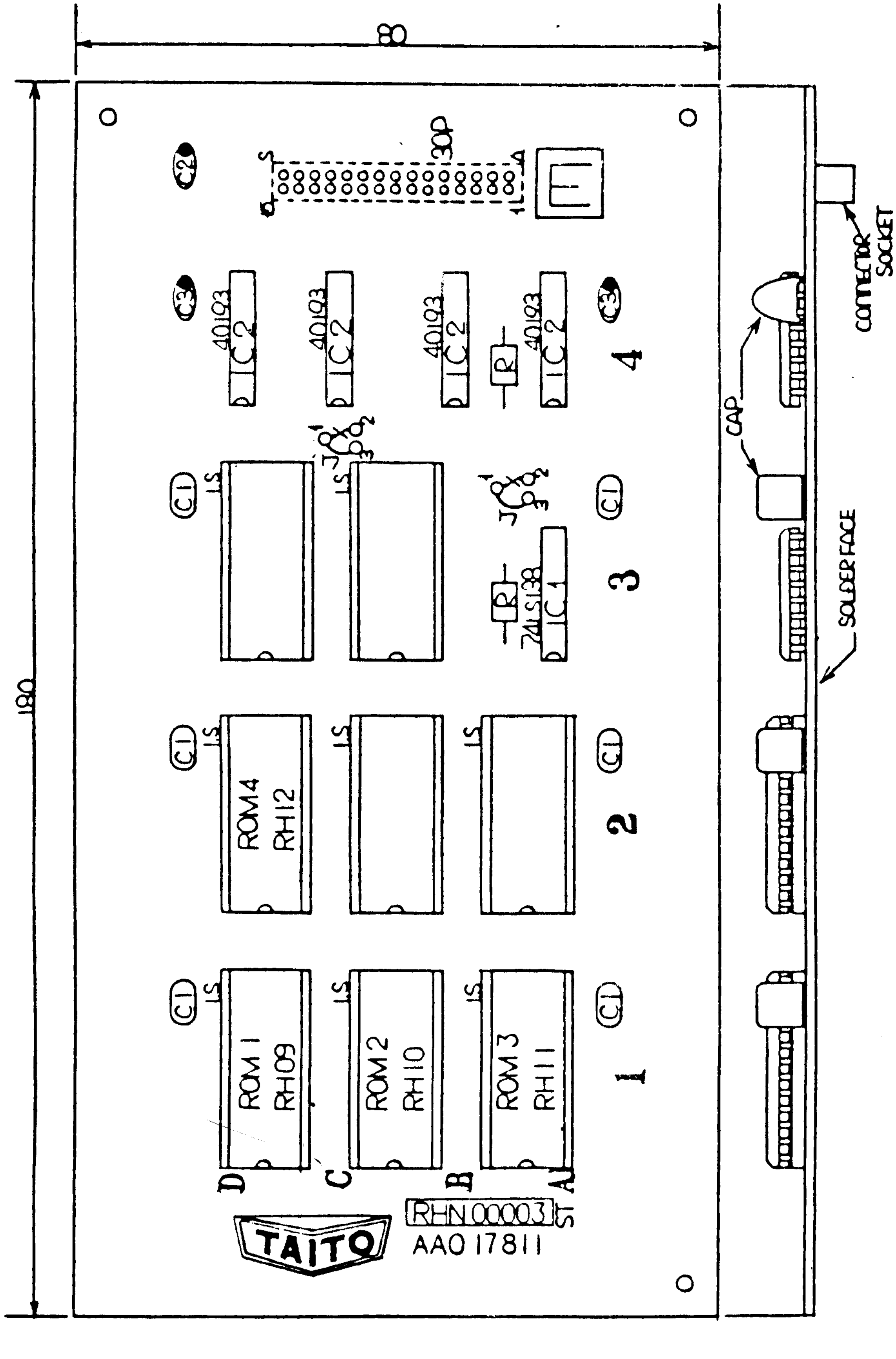
ROM BOARD

FIGURE 17

ITEM	SYM	TAITO PART NO.	DESCRIPTION
1			ROM PC BOARD
2			NOT USED
3	30P	99-AA055161	CONNECTOR SOCKET HKP-30FD
4	1S	99-AA055787	IC - SOCKET 24P
5			NOT USED
6	IC1	99-AAT33096	LS - IC 74LS138
7	IC2	99-AAT36071	CMOS 40193
8	ROM 1	99-RH090409	PROM (2732) RH09
9	ROM 2	99-RH090410	PROM (2732) RH10
10	ROM 3	99-RH090411	PROM (2732) RH11
11	ROM 4	99-RH090412	PROM (2732) RH12
12			NOT USED
13			NOT USED
14			NOT USED
15			NOT USED
16			NOT USED
17	C1	99-AAT41244	CAP, FILM TDY-1H-104
18	C2	99-AAT41430	CAP, TANTALUM SSG25-10F
19	C3	99-AAT41436	CAP, TANTALUM SSG35-1F
20	R	99-AAT51765	RES, CARBON 1 KOHM 1/4W 5%
21	J	99-AA062637	TINNED COPPER WIRE 10
22			NOT USED
23	S1	99-RH070203	PC BOARD STICKER RHN00003

ROM PC BOARD LAYOUT

FIGURE 17



CPU BOARD

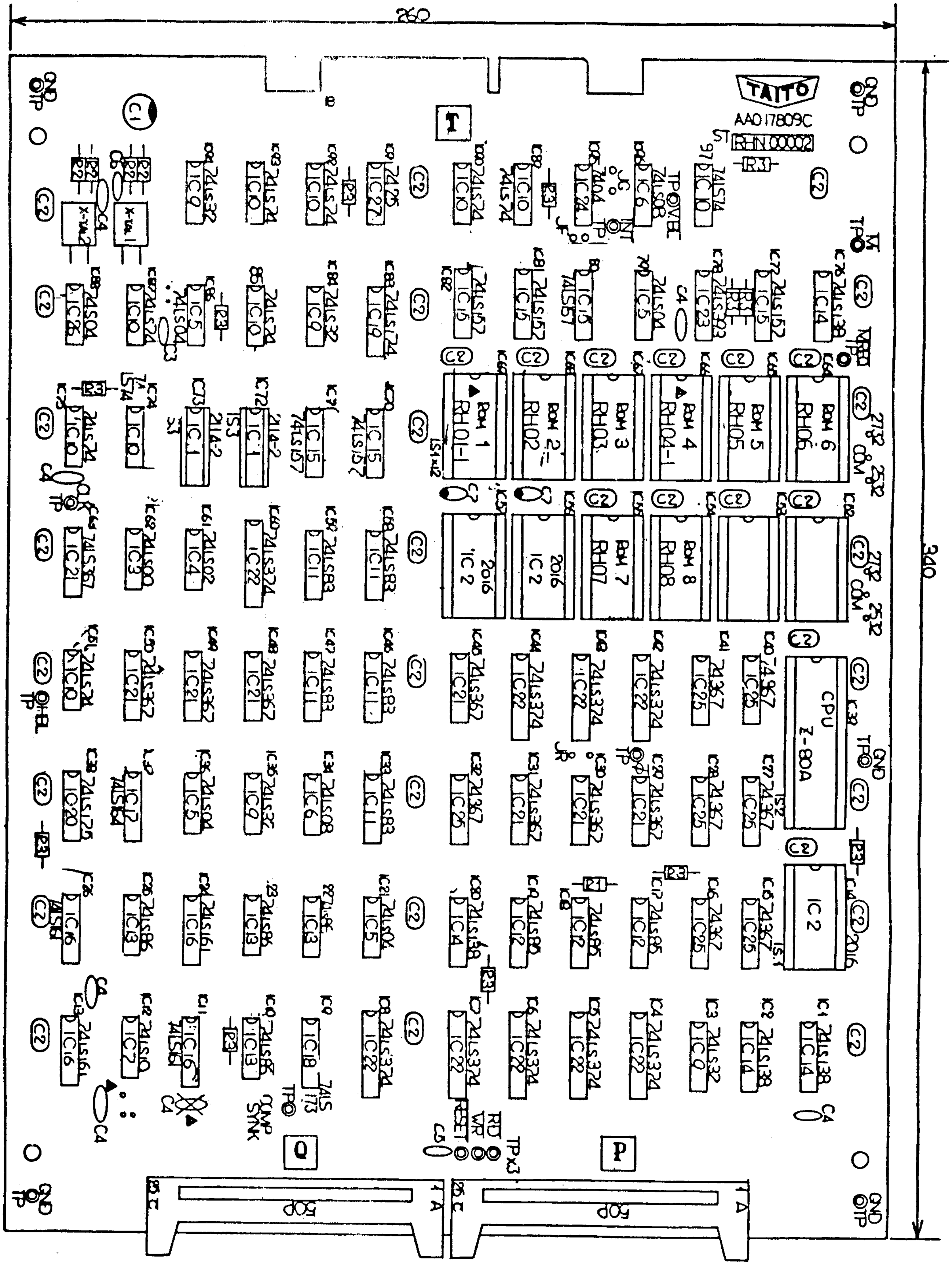
FIGURE 18

ITEM	SYM	TAITO PART NO.	DESCRIPTION
1			CPU BOARD
2	ST	99-RH070202	PC BOARD STICKER RHN00002
3	50P	99-AA055310	ANGLE PIN HEADER PS-50P
4	1S1	99-AA055787	IC - SOCKET 24P
5	1S2	99-AA055812	IC - SOCKET 40P
6	1P	99-AA056551	TEST POINT
7	XTAL 2	99-AA069605	X-TAL 12MHZ
8	XTAL 1	99-AA069608	X-TAL 8MHZ
9	1S3	99-AA055103	IC - SOCKET 18P
10			NOT USED
11	IC1	99-AAT32163	STATIC RAM 2114-7
12	IC2	99-AAT32178	STATIC RAM TMM2016P
13	IC3	99-AAT33001	LS-IC 74LS00
14	IC4	99-AAT33003	LS-IC 74LS02
15	IC5	99-AAT33005	LS-IC 74LS04
16	IC6	99-AAT33009	LS-IC 74LS08
17	IC7	99-AAT33011	LS-IC 74LS10
18			NOT USED
19	IC9	99-AAT33027	LS-IC 74LS32
20	IC10	99-AAT33051	LS-IC 74LS74
21	IC11	99-AAT33059	LS-IC 74LS83
22	IC12	99-AAT33061	LS-IC 74LS85
23	IC13	99-AAT33062	LS-IC 74LS86
24	IC14	99-AAT33096	LS-IC 74LS138
25	IC15	99-AAT33112	LS-IC 74LS157
26	IC16	99-AAT33116	LS-IC 74LS161
27	IC17	99-AAT33119	LS-IC 74LS164
28	IC18	99-AAT33126	LS-IC 74LS173
29	IC19	99-AAT33127	LS-IC 74LS174
30	IC20	99-AAT33128	LS-IC 74LS175

ITEM	SYM	TAITO PART NO.	DESCRIPTION
31	IC21	99-AAT33203	LS-IC 74LS367
32	IC22	99-AAT33209	LS-IC 74LS374
33	IC23	99-AAT33220	LS-IC 74LS393
34	CPU	99-AAT34008	CPU 7-80A
35	IC24	99-AAT32003	TTL-IC 7404
36	IC25	99-AAT32099	TTL-IC 74367
37	C1	99-AAT41023	CAP, ELECTROLYTIC 16VB220
38	C2	99-AAT41244	CAP, FILM TDY-1H-104
39	C3	99-AAT41302	CAP, CERAMIC 22PF50V
40	C4	99-AAT41324	CAP, CERAMIC 180PF50V
41	C5	99-AAT41330	CAP, CERAMIC 330PF50V
42	C6	99-AAT41411	CAP, CERAMIC 10000P50V
43	C7	99-AAT41436	CAP, TANTALUM SSG35-1F
44	R1	99-AAT51749	RES, CARBON 220 OHM 1/4W 5%
45	R2	99-AAT51253	RES, CARBON 330 OHM 1/4W 5%
46	R3	99-AAT51265	RES, CARBON 1K OHM 1/4W 5%
47			NOT USED
48			NOT USED
49	ROM 2	99-RH090402	PROM (2732) RH02
50	ROM 3	99-RH090403	PROM (2732) RH03
51			NOT USED
52	ROM 5	99-RH090405	PROM (2732) RH05
53	ROM 6	99-RH090406	PROM (2732) RH06
54	ROM 7	99-RH090407	PROM (2732) RH07
55	ROM 8	99-RH090408	PROM (2732) RH08
56	ROM 1	99-RH090415	PROM (2732) RH 01-01
57	ROM 4	99-RH090414	PROM (2732) RH 04-01
58	IC26	99-AAT38003	S-IC 74S04
59	IC27	99-AAT32006	TTL-IC 7475

CPU PC BOARD LAYOUT

FIGURE 18



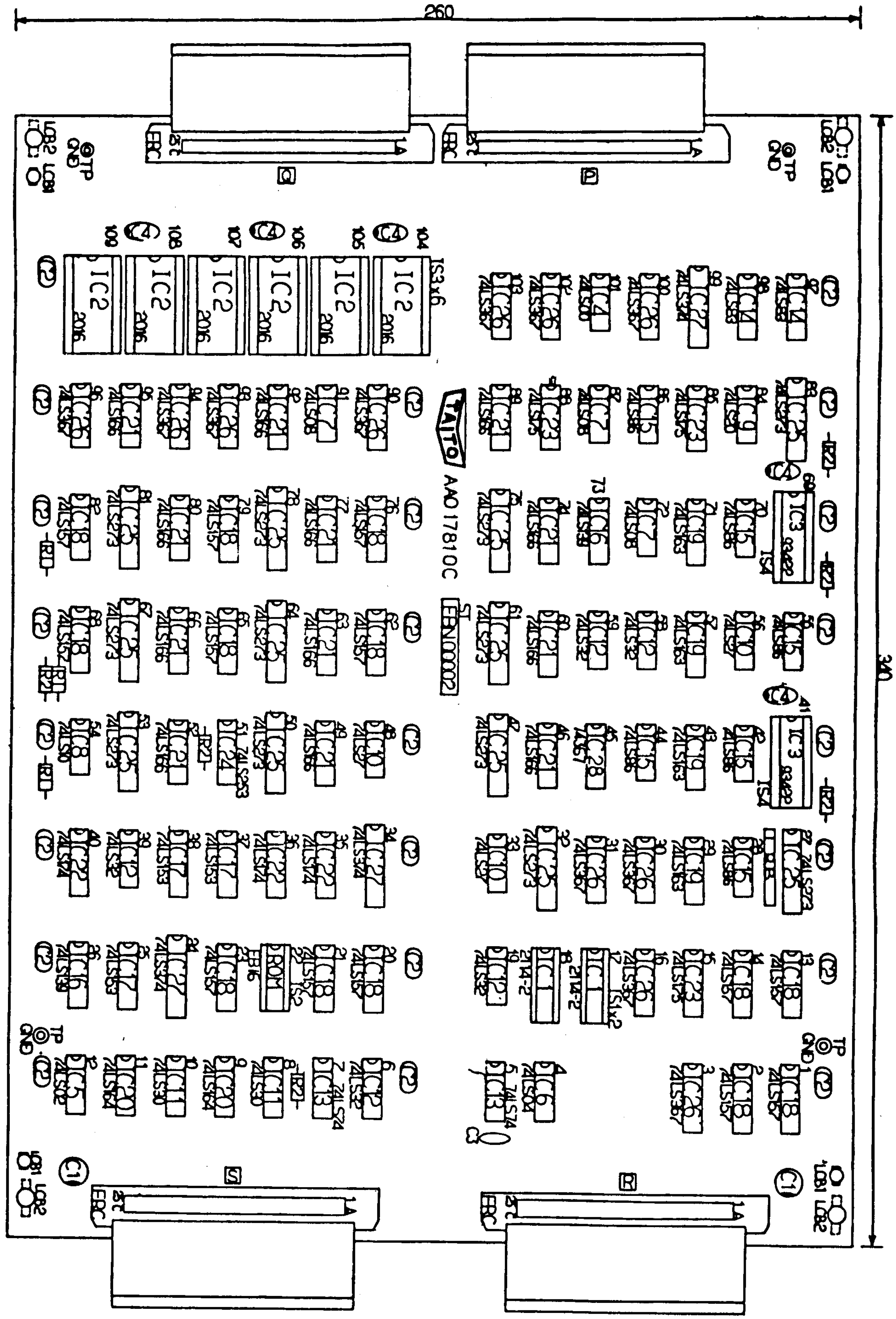
VIDEO BOARD

FIGURE 19

ITEM	SYM	TAITO PART NO.	DESCRIPTION
1			VIDEO PC BOARD
2	LCB	99-AA069557	LOCKING CIRCUIT BOARD SUPPORT
3	FRC	99-AAS00262	FRC HARNESS ASSY 50P
4	IS1	99-AA055103	IC SOCKET 18P
5	IS2	99-AA055286	IC SOCKET 16P
6	IS3	99-AA055287	IC SOCKET 24P
7	IS4	99-AA055999	IC SOCKET 22P
8	TP	99-AA056551	TEST POINT
9	LCB2	99-AA069589	LOCKING CIRCUIT BOARD SUPPORT
10	IC1	99-AAT32163	STATIC RAM 2114-2
11	IC2	99-AAT32178	STATIC RAM TMM2016P
12	IC3	99-AAT32180	TTL-RAM 93422
13	IC4	99-AAT33001	LS-IC 74LS00
14	IC5	99-AAT33003	LS-IC 74LS02
15	IC6	99-AAT33005	LS-IC 74LS04
16	IC7	99-AAT33009	LS-IC 74LS0
17	IC8	99-AAT33011	LS-IC 74LS10
18	IC9	99-AAT33019	LS-IC 74LS20
19	IC10	99-AAT33024	LS-IC 74LS27
20	IC11	99-AAT33026	LS-IC 74LS30
21	IC12	99-AAT33027	LS-IC 74LS32
22	IC13	99-AAT33051	LS-IC 74LS51
23	IC14	99-AAT33059	LS-IC 74LS83
24	IC15	99-AAT33062	LS-IC 74LS86
25	IC16	99-AAT33092	LS-IC 74LS139
26	IC17	99-AAT33108	LS-IC 74LS153
27	IC18	99-AAT33112	LS-IC 74LS157
28	IC19	99-AAT33118	LS-IC 74LS163
29	IC20	99-AAT33119	LS-IC 74LS164
30	IC21	99-AAT33121	LS-IC 74LS121
31	IC22	99-AAT33127	LS-IC 74LS174
32	IC23	99-AAT33128	LS-IC 74LS175
33	IC24	99-AAT33163	LS-IC 74LS253
34	IC25	99-AAT33170	LS-IC 74LS273
35	IC26	99-AAT33203	LS-IC 74LS367
36	IC27	99-AAT33209	LS-IC 74LS374
37	IC28	99-AAT32099	TTL IC 74367
38	ROM	99-EB090016	PROM (74S287) EB16
39			NOT USED
40	C1	99-AAT41023	CAP, ELECTROLYTIC 16VB220
41	C2	99-AAT41244	CAP, FILM TDY-1H-104
42	C3	99-AAT41324	CAP, CERAMIC DT 203 180P
43	C4	99-AAT41436	CAP, TANTALUM SSG35-1F
44	R1	99-AAT51757	RES, CARBON 470 OHM 1/4W 5%
45	R2	99-AAT51765	RES, CARBON 1K OHM 1/4W 5%
46	RB	99-AAT55036	RESISTOR BLOCK 1K OHM 8 ELEMENTS
47	ST	99-FB070006	PC BOARD STICKER FBN00002

VIDEO PC BOARD LAYOUT

FIGURE 19



GAME BOARD

FIGURE 20

ITEM	SYM	TAITO PART NO.	DESCRIPTION
1			GAME PCB
2	IS5	99-AA055103	IC SOCKET 18P
3	DS	99-AA052566	DIP SWITCH
5	30P	99-AA055160	CONNECTOR PLUG HKP-30M
6	IS1	99-AA055169	IC SOCKET 28P
7	50P	99-AA055310	ANGLE PIN HEADER PS-50PA
8	IS2	99-AA055787	IC SOCKET 24P
9	IS3	99-AA055812	IC SOCKET 40P
10	IS4	99-AA055000	IC SOCKET 22P
11	TP	99-AA056551	TEST POINT
12	LCB	99-AA060557	LOCKING CIRCUIT BOARD SUPPORT
13	TR1	99-AAT11040	TRANSISTOR 25A423
14			PAN HO SCREW M3X6
15			NUT M3
16	TR2	99-AAT11070	TRANSISTOR 25D635
17			PAN HO SCREW
18			NUT M3
19	OP1	99-AAT31011	OP AMPLIFIER 1M3000
20	OP2	99-AAT31050	OP AMPLIFIER MR3230
21			PAN HO SCREW M3X8
22			NUT M3
23	IC1	99-AAT32033	TTL-IC 7416
24	IC2	99-AAT32049	TTL-IC 7417
25	IC3	99-AAT32163	STATIC RAM 2114.2
26	IC4	99-AAT32165	SOUND IC AY38910
27	IC5	99-AAT32179	TTL - RAM 93410
28	IC6	99-AAT33001	LS-IC 74LS00
29	IC7	99-AAT33003	LS-IC 74LS02
30	IC8	99-AAT33005	LS-IC 74LS04
31	IC9	99-AAT33009	LS-IC 74LS08
32	IC10	99-AAT33027	TI (ONLY) 74LS37
33	IC11	99-AAT33051	LS-IC 74LS74
34	IC12	99-AAT33070	LS-IC 74LS96
35	IC13	99-AAT33096	LS-IC 74LS138
36	IC14	99-AAT33097	LS-IC 74LS139
37	IC15	99-AAT33108	LS-IC 74LS153
38	IC16	99-AAT33110	LS-IC 74LS155
39	IC17	99-AAT33163	LS-IC 74LS253
40	IC18	99-AAT33164	LS-IC 74LS257
41	IC19	99-AAT33166	LS-IC 74LS259
42	IC20	99-AAT33170	LS-IC 74LS273
43	IC21	99-AAT33203	LS-IC 74LS367
44	IC22	99-AAT33209	LS-IC 74LS374
45	IC23	99-AAT33220	LS-IC 74LS393
46	CPU	99-AAT34008	CPU Z-80A
47	IC24	99-AAT36105	CMOS MB14584
48	IC25	99-AAT32005	CUSTOM IC MB14257

ITEM	SYM	TAITO PART NO.	DESCRIPTION
49	IC28	99-AAT32099	TTL IC 74367
50	IC27	99-AAT32003	TTL IC 7404
51	IC28	99-AAT32011	TTL IC 7474
52	IC29	99-AAT32151	TTL IC 7427
53	ROM	99-RH090413	PROM (2732) RH-13
54	C1	99-AAT41019	CAP, ELECTROLYTIC 16VB220 MF
55	C2	99-AAT41023	CAP, ELECTROLYTIC 16VB220
56	C3	99-AAT41238	CAP, FILM TDY-1M-103
57	C4	99-AAT41740	CAP, FILM TDY-1H-223
58	C5	99-AAT41244	CAP, FILM TDY-1H-104
59	C6	99-AAT41310	CAP, CERAMIC 47PF 50V
60			NOT USED
61	C8	99-AAT41322	CAP, CERAMIC 150PF 50V
62	C9	99-AAT41374	CAP, CERAMIC 180PF 50V
63			NOT USED
64	C11	99-AAT41334	CAP, CERAMIC 470PF 50V
65	C12	99-AAT41430	CAP, TANTALUM SSG25-10F
66	C13	99-AAT41431	CAP, TANTALUM SSG35-0R1F
67	C14	99-AAT41436	CAP, TANTALUM SSG35-1F
68	C15	99-AAT41437	CAP, TANTALUM SSG35 7R2F
69	R1	99-AAT51741	RES, CARBON 100 OHM 1/2W 5%
70	R2	99-AAT51749	RES, CARBON 220 OHM 1/4W 5%
71	R3	99-AAT51751	RES, CARBON 270 OHM 1/4W 5%
72	R4	99-AAT51753	RES, CARBON 330 OHM 1/4W 5%
73	R5	99-AAT51755	RES, CARBON 390 OHM 1/4W 5%
74	R6	99-AAT51757	RES, CARBON 470 OHM 1/4W 5%
75	R7	99-AAT51765	RES, CARBON 1K
76	R8	99-AAT51779	RES, CARBON 396 OHM 1/4W 5%
77	R9	99-AAT51781	RES, CARBON 47K OHM 1/4W 5%
78	R10	99-AAT51789	RES, CARBON 10K OHM 1/4W 5%
79	R11	99-AAT51796	RES, CARBON 20K OHM 1/4W 5%
80	R12	99-AAT51797	RES, CARBON 22K OHM 1/4W 5%
81	R13	99-AAT51803	RES, CARBON 39K OHM 1/4W 5%
82	R14	99-AAT51775	RES, CARBON 2.7K OHM 1/4W 5%
83	R15	99-AAT51811	RES, CARBON 82K OHM 1/4W 5%
84	R16	99-AAT51817	RES, CARBON 100K OHM 1/4W 5%
85	R17	99-AAT51823	RES, CARBON 270K OHM 1/4W 5%
86	R18	99-AAT51825	RES, CARBON 330K OHM 1/4W 5%
87	R19	99-AAT51827	RES, CARBON 390K OHM 1/4W 5%
88	R20	99-AAT51829	RES, CARBON 470K OHM 1/4W 5%
89	R21	99-AAT51833	RES, CARBON 680K OHM 1/4W 5%
90	R22	99-AAT51837	RES, CARBON 1M OHM 1/4W 5%
91	R23	99-AAT51733	RES, CARBON 47 OHM 1/4W 5%
92			NOT USED
93	R25	99-AAT51845	22M OHM 1/4W 5%
94			NOT USED
95			NOT USED

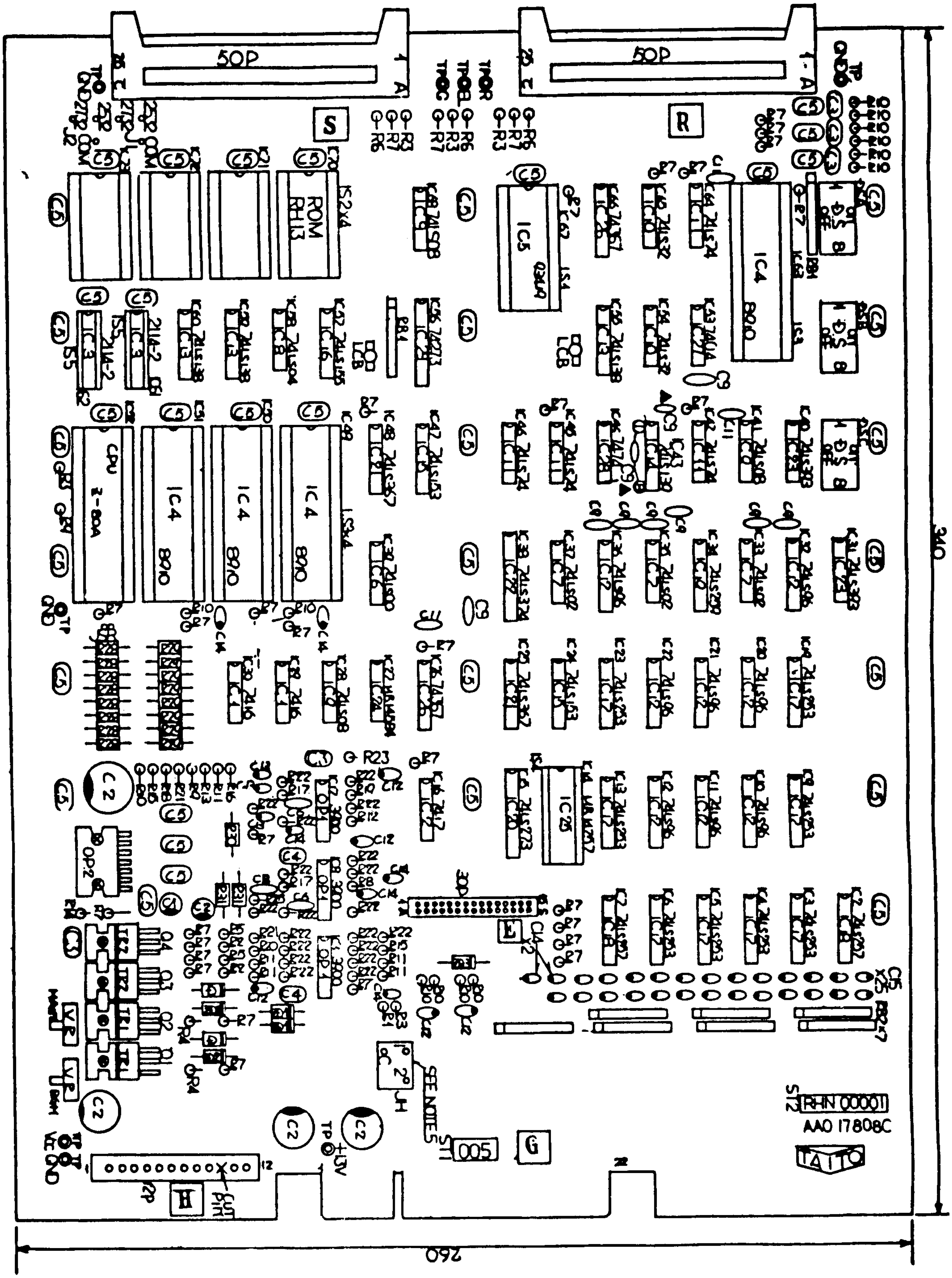
GAME BOARD

FIGURE 20

ITEM	SYM	TAITO PART NO.	DESCRIPTION
96	R28	99-AAT51068	15K OHM 1/4W 5%
97	R29	99-AAT51969	30K OHM 1/4W 5%
98	R30	99-AAT51971	1M 1/4W 5%
99	R31	99-AAT51982	RES, CARBON 1 OHM 1/2W 5%
100	VR	99-AAT53041	VARIABLE RESISTOR B-50K
101	RB1	99-AAT55036	RESISTOR BLOCK 1K OHM 8 ELEMENTS
102	RB2	99-AAT55061	RESISTOR BLOCK 10K 100 OHM 8 ELEMENTS
103	D	99-AAT12009	DIODE V03C
104	ZD1	99-AAT13025	ZENER DIODE RD4.2EC
105	ZD2	99-AAT13026	ZENER DIODE RD5.6EB
106	ZD3	99-AAT13028	ZENER DIODE RD9A-M
107	ST1	99-EE070004	HARNESS STICKER
108	ST2	99-RH070201	PCB STICKER RHN00001

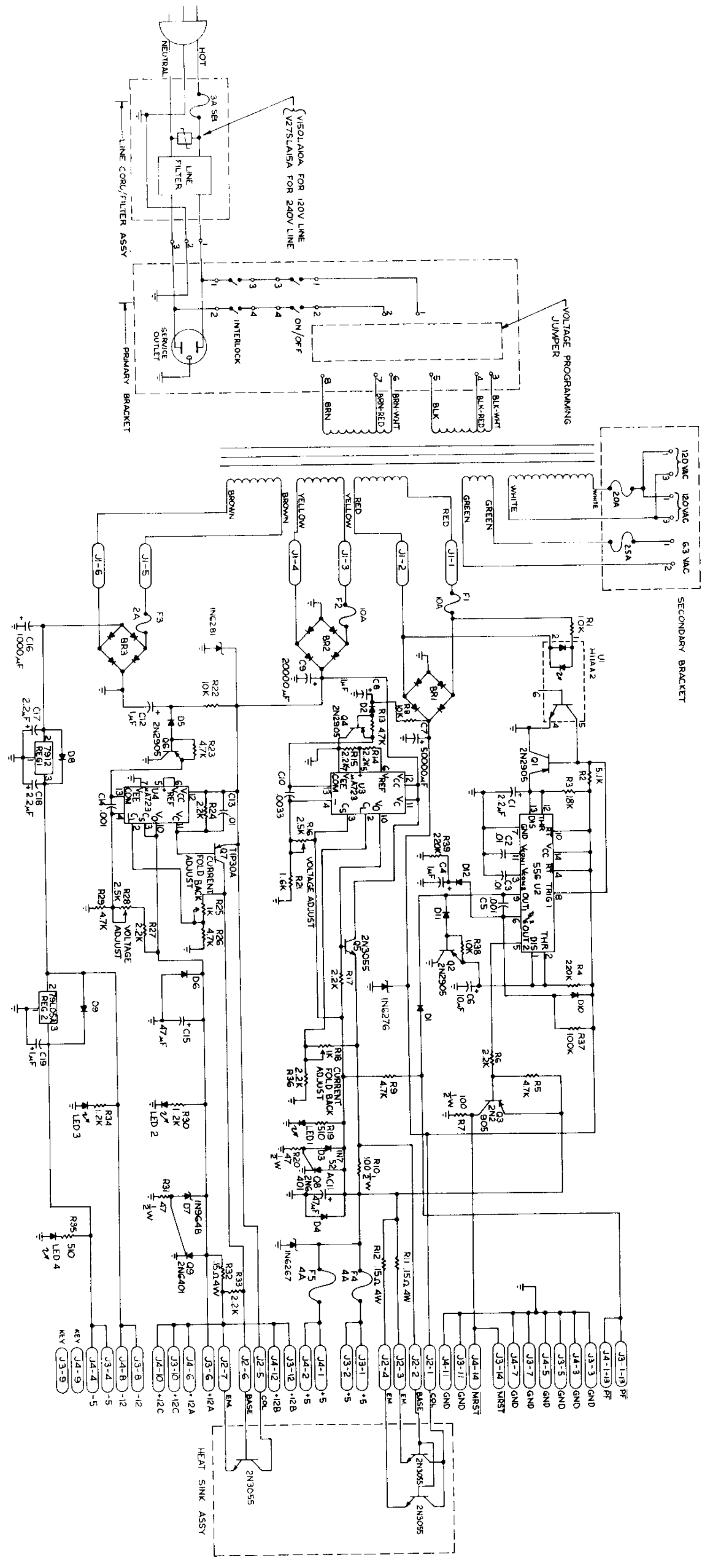
GAME PC BOARD LAYOUT

FIGURE 20



POWER SUPPLY SCHEMATIC 1 OF 1

FIGURE 21



ROM PC BOARD SCHEMATIC 1 OF 1

FIGURE 22

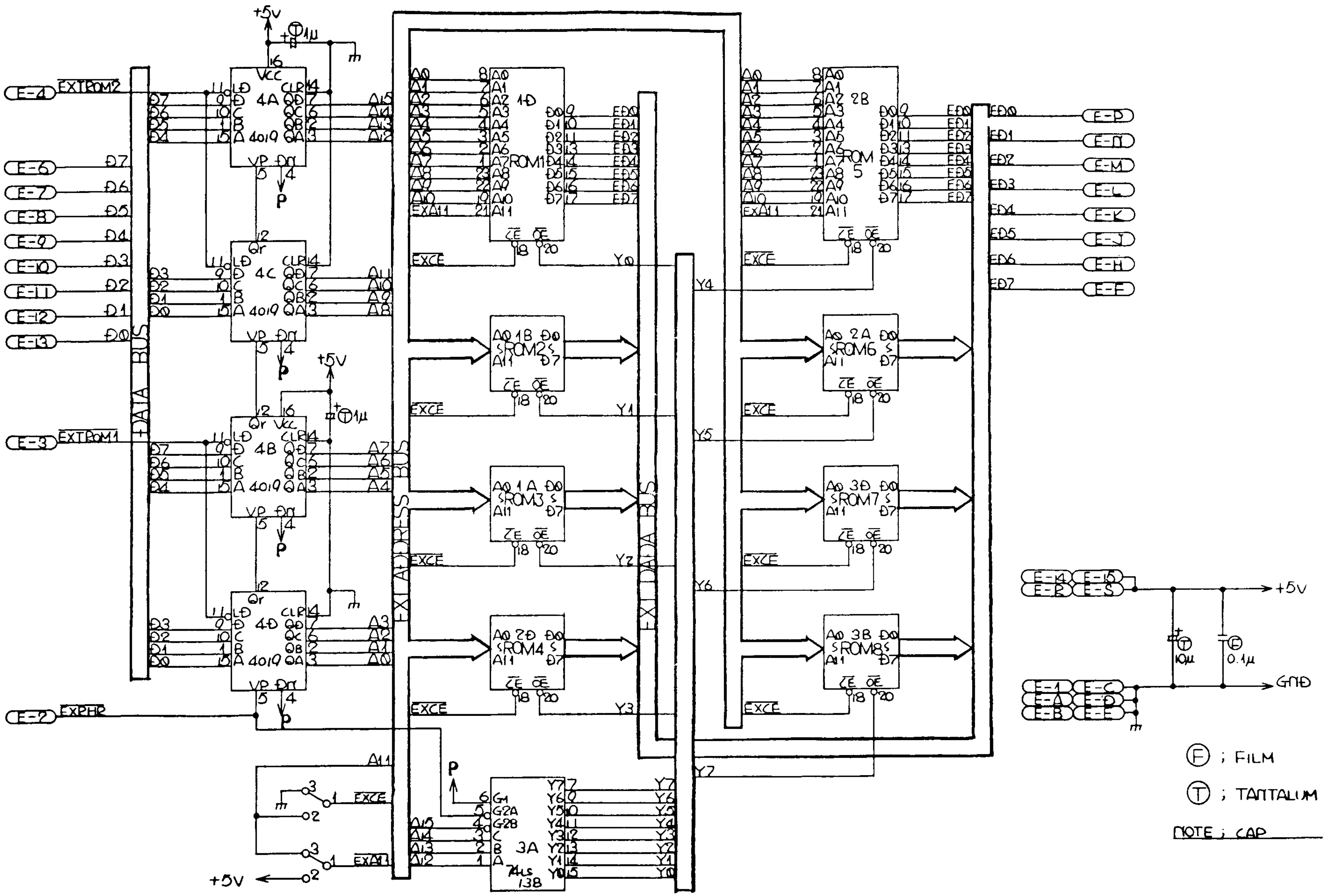
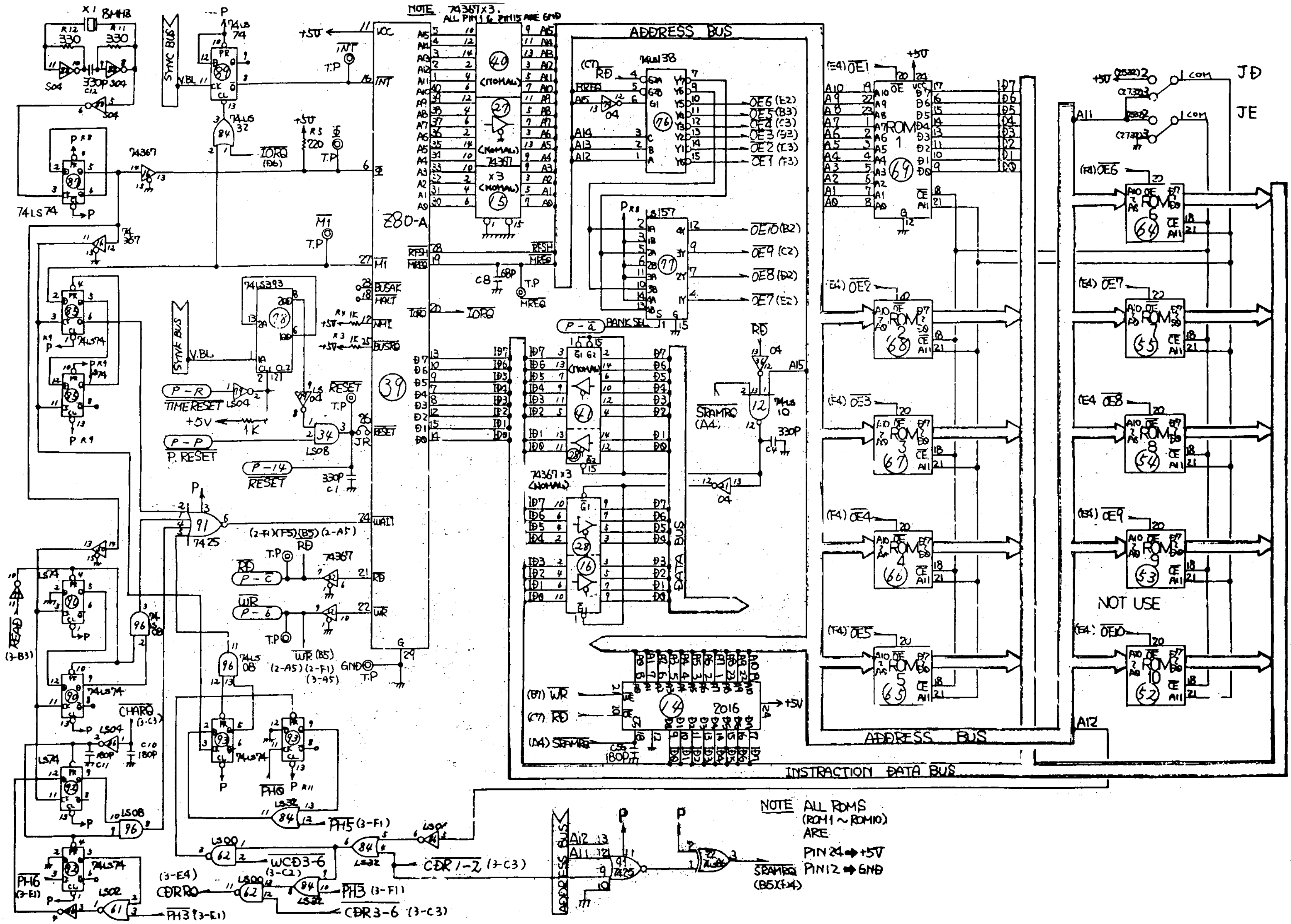


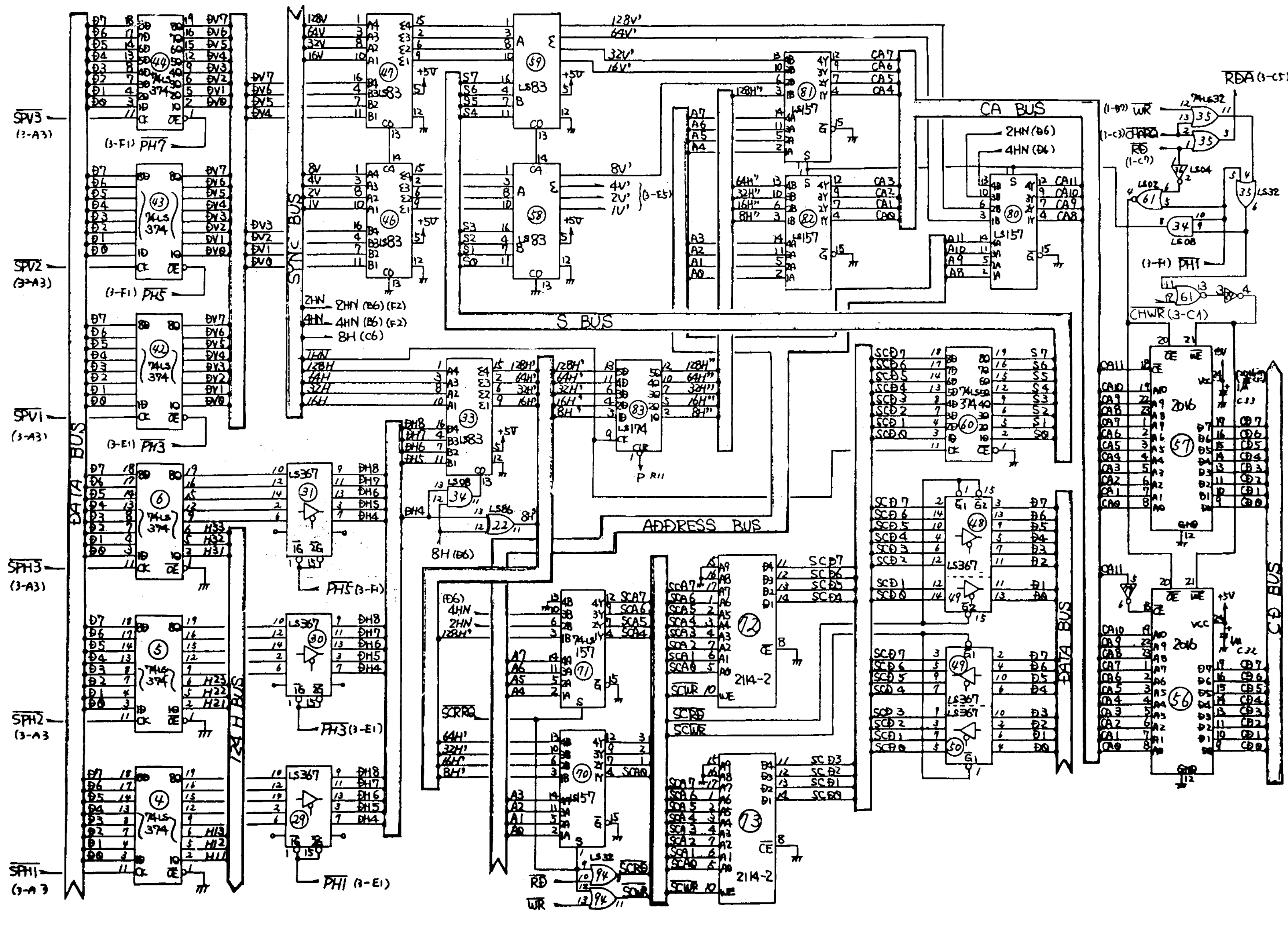
FIGURE 23

CPU PC BOARD SCHEMATIC 1 OF 3



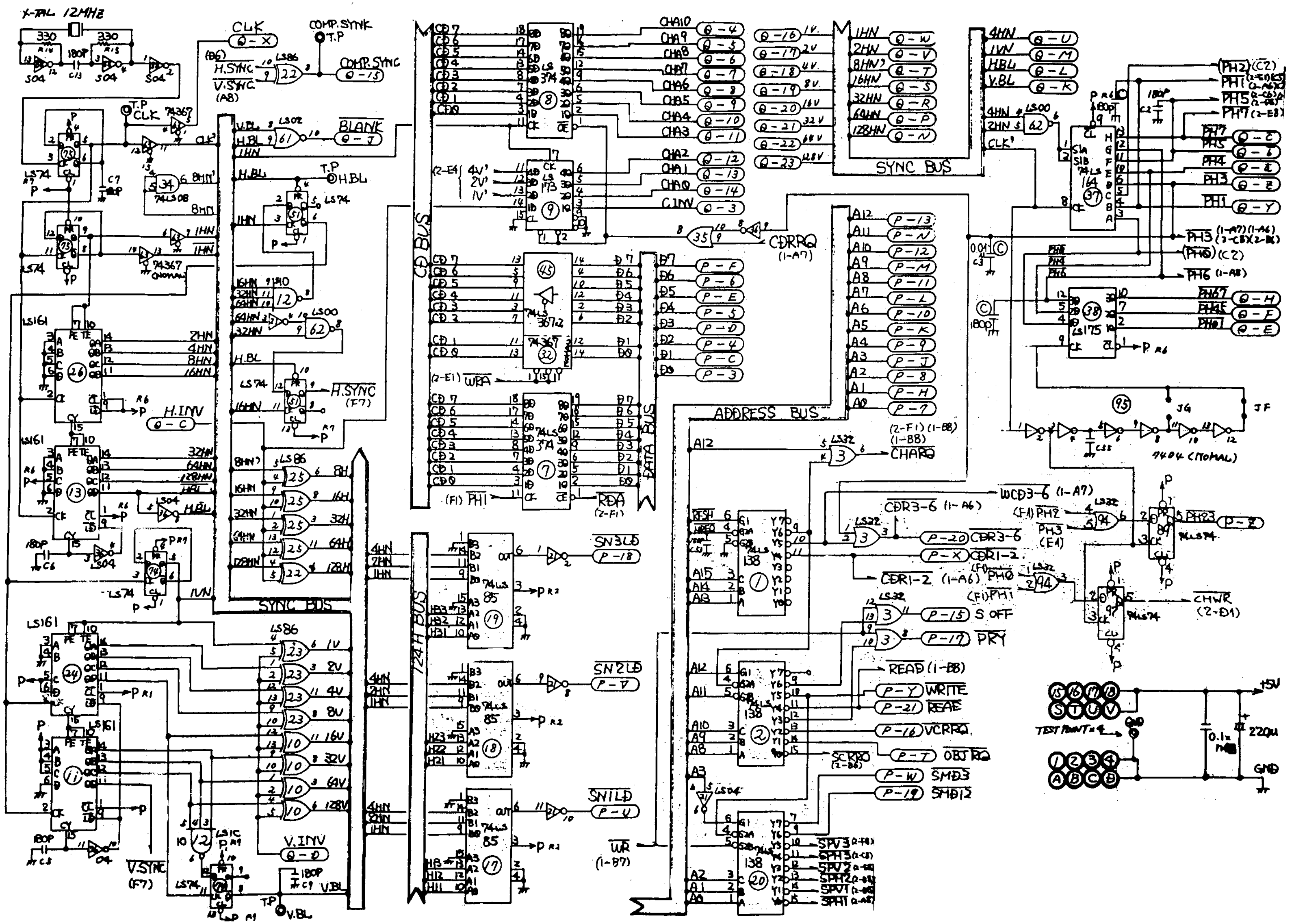
CPU PC BOARD SCHEMATIC 2 OF 3

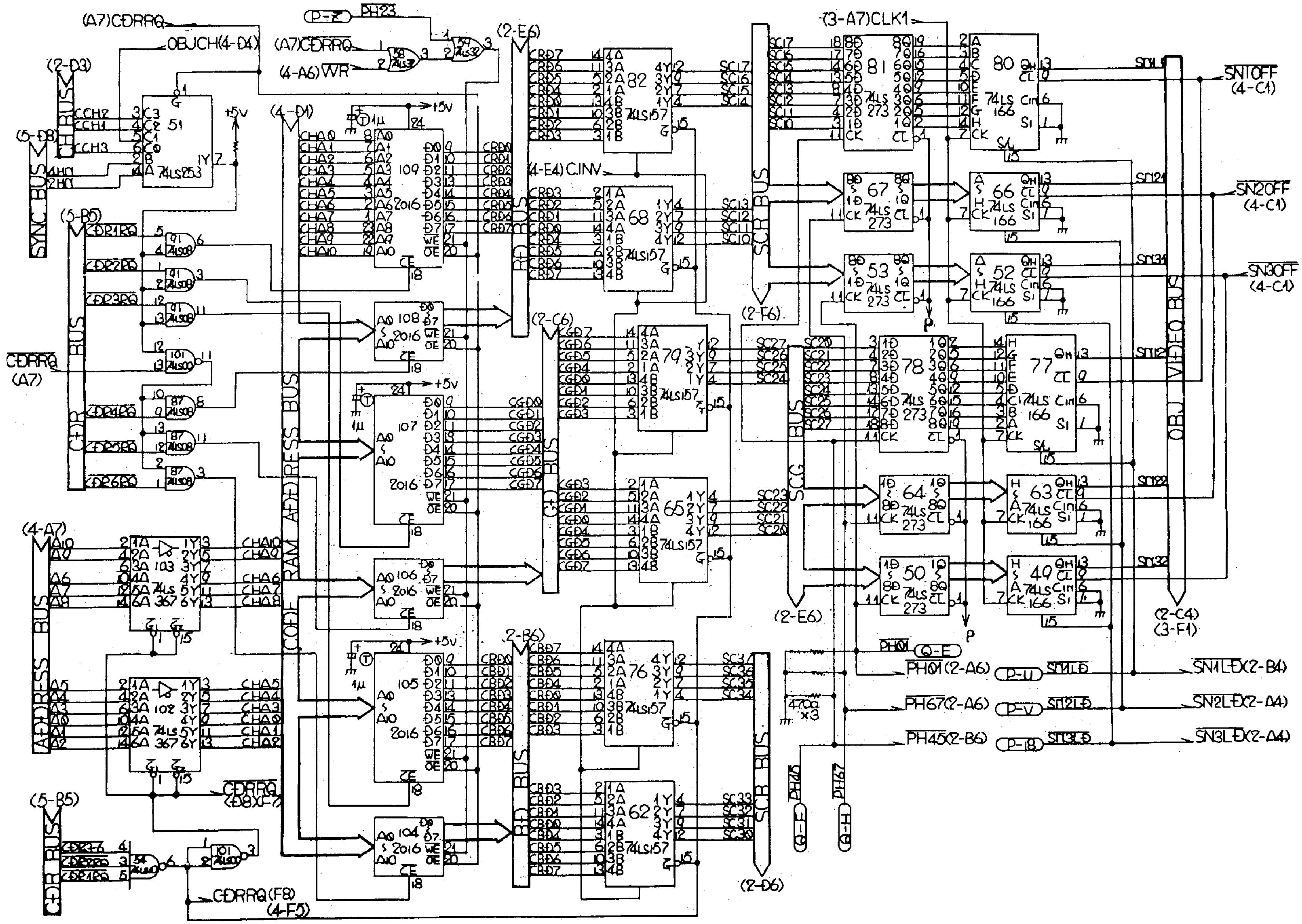
FIGURE 24



CPU PC BOARD SCHEMATIC 3 OF 3

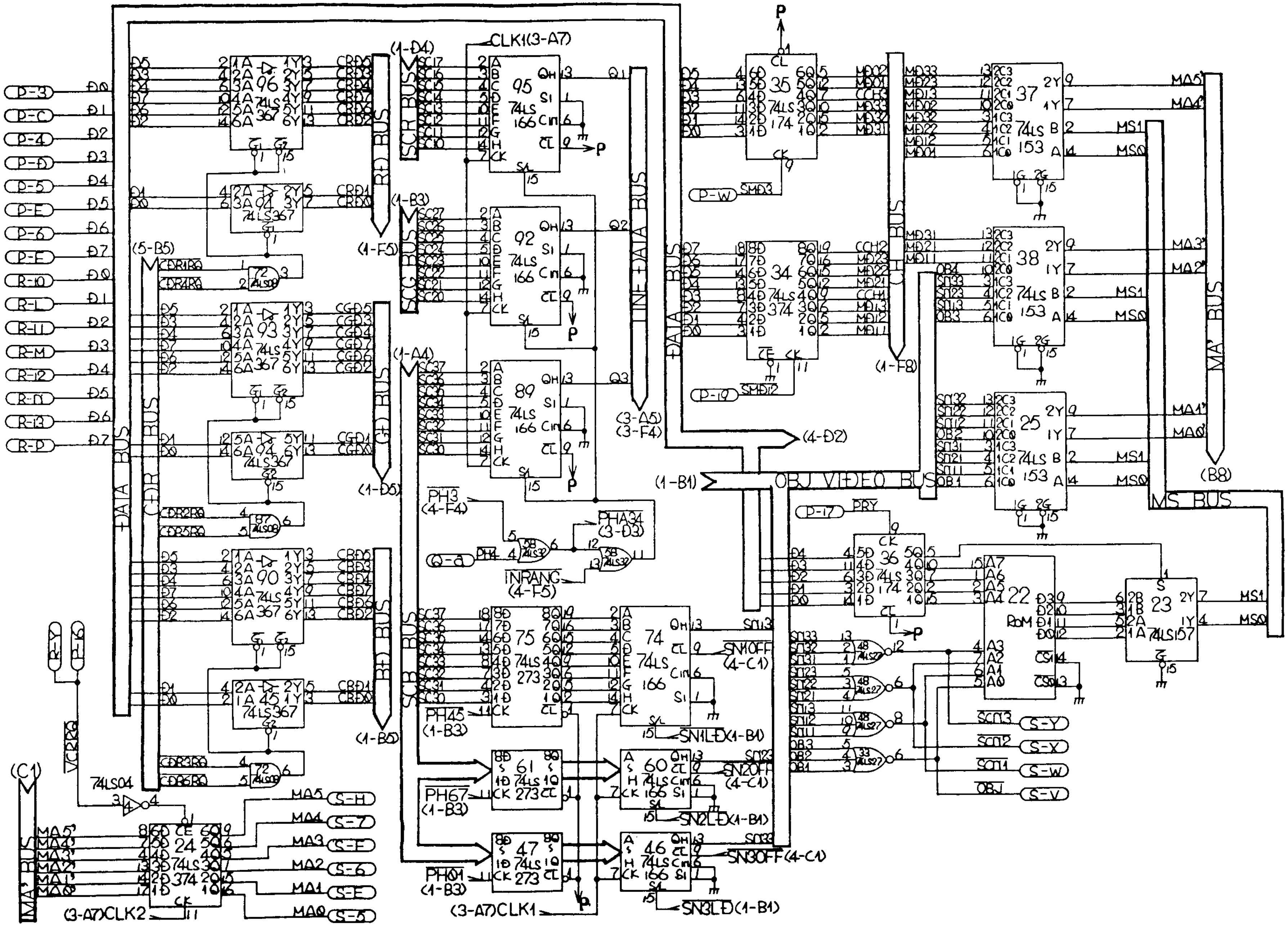
FIGURE 25





VIDEO PC BOARD SCHEMATIC 1 OF 5

FIGURE 26

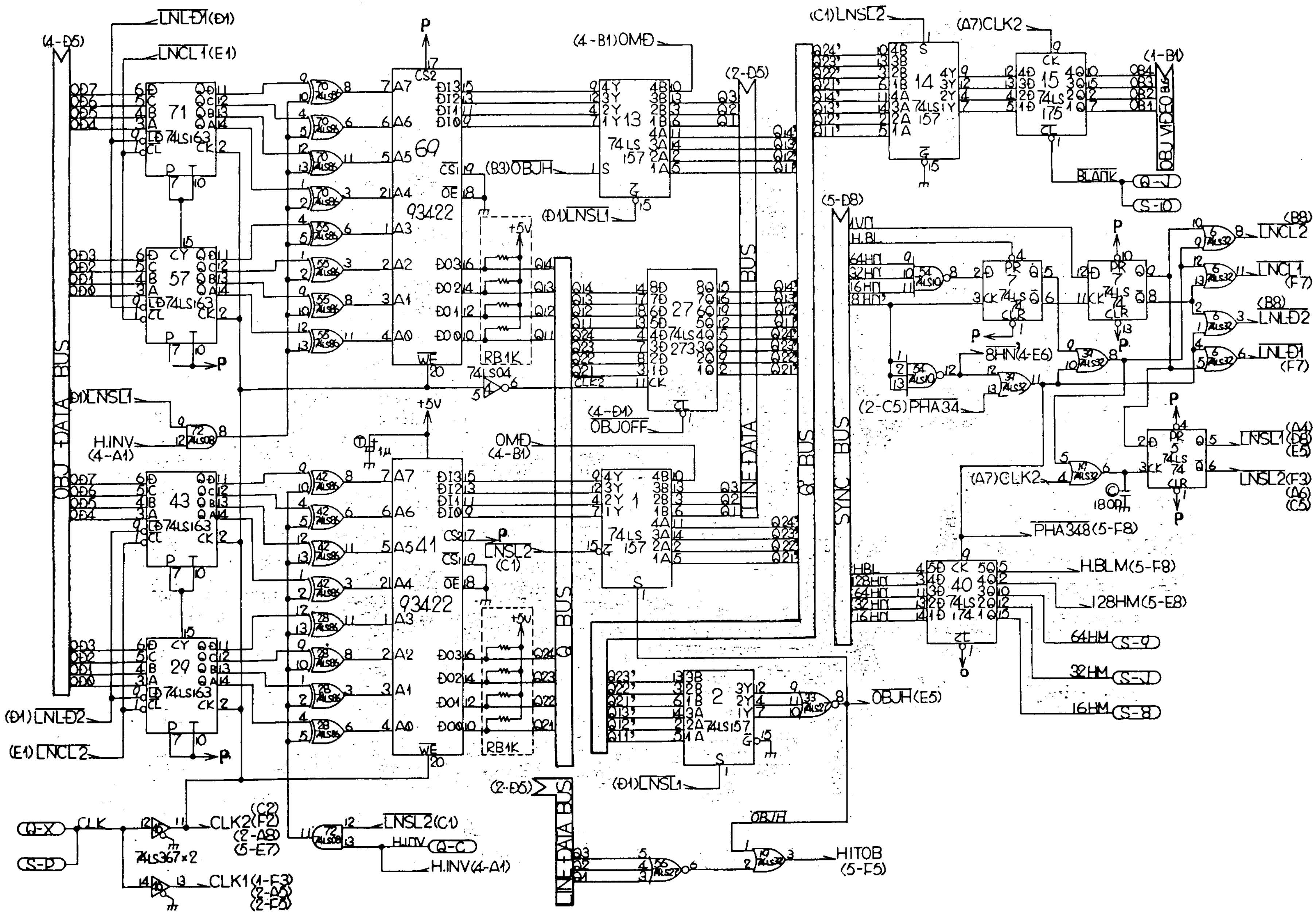


VIDEO PC BOARD SCHEMATIC 2 OF 5

FIGURE 27

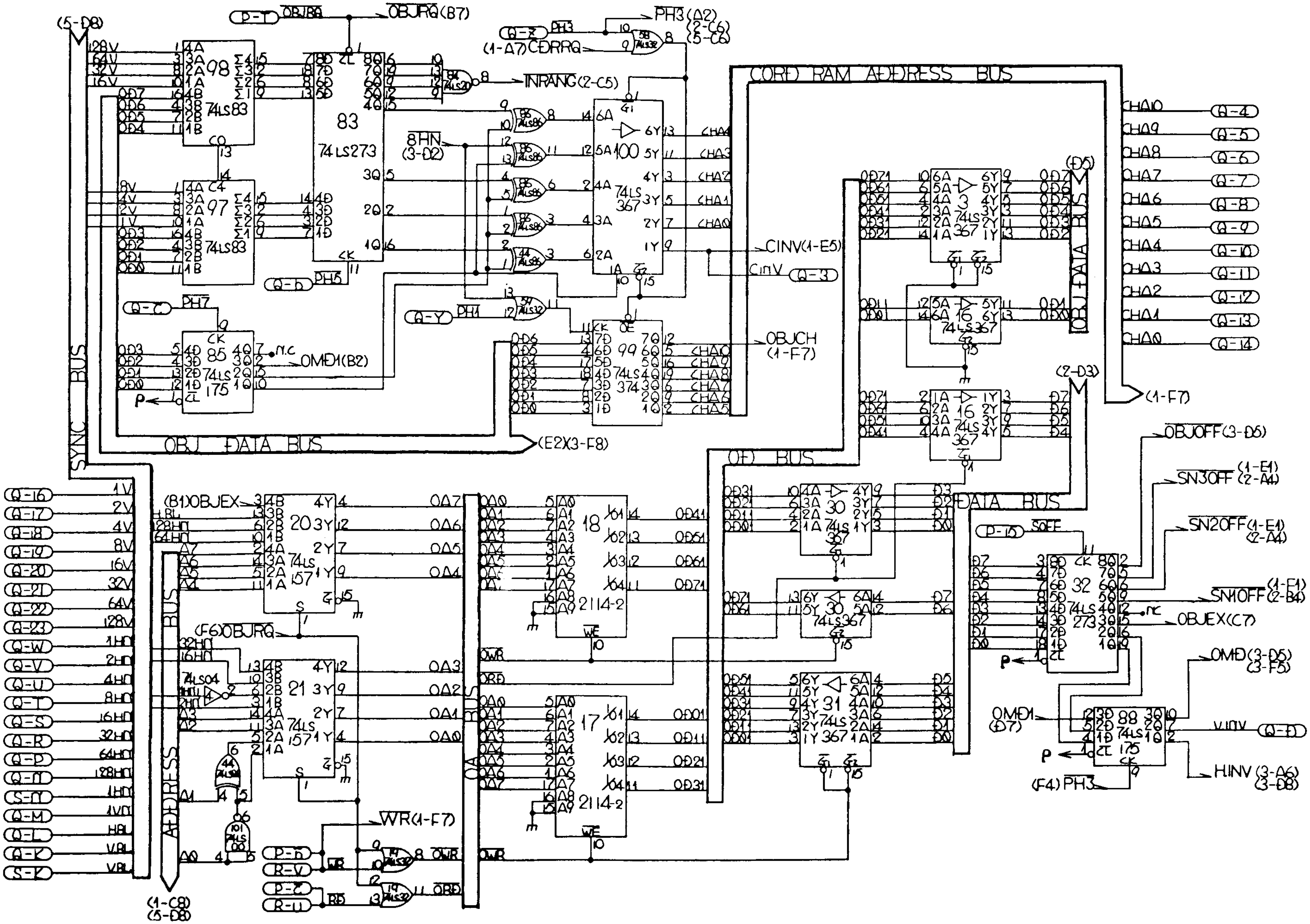
VIDEO PC BOARD SCHEMATIC 3 OF 5

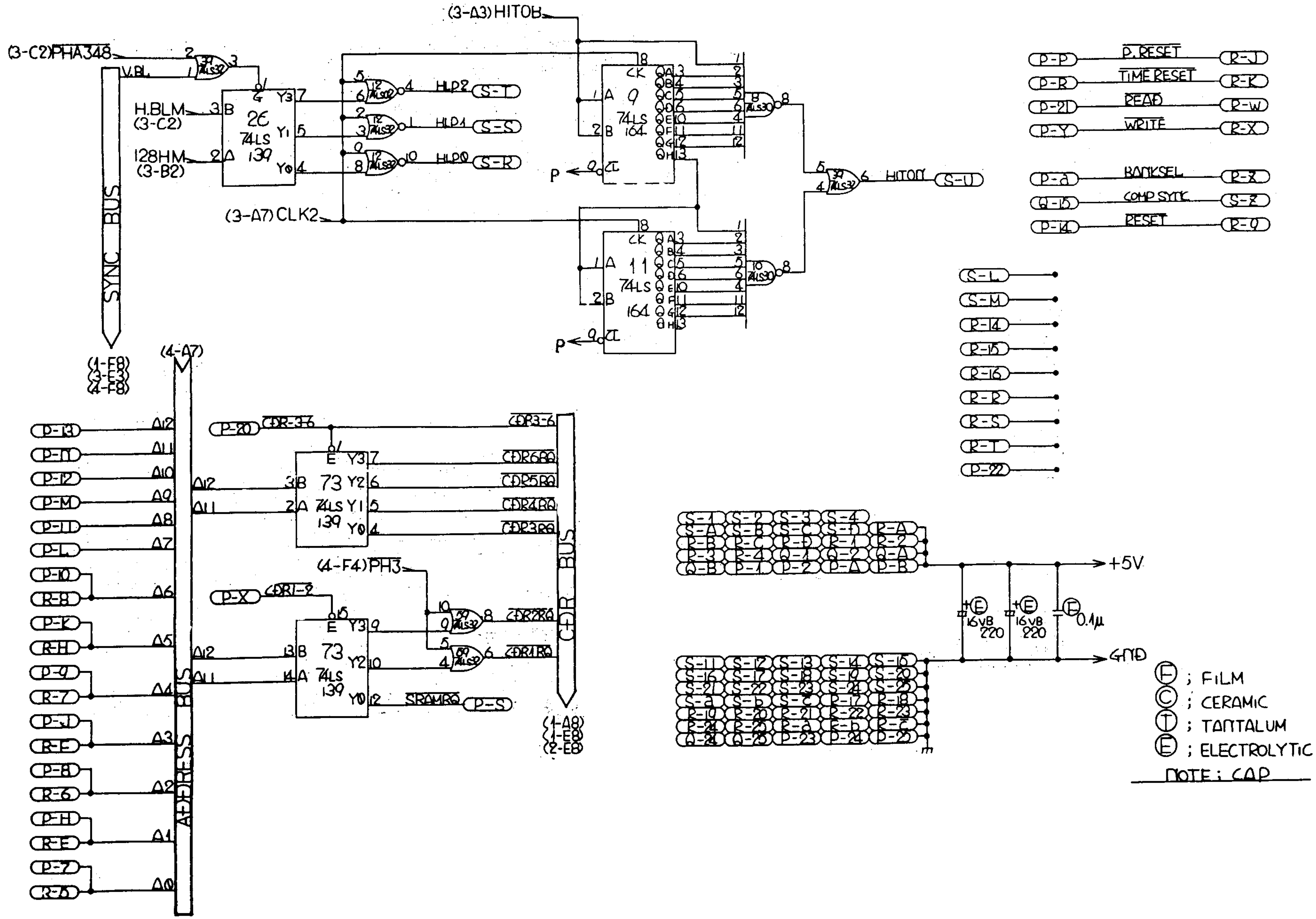
FIGURE 28



VIDEO PC BOARD SCHEMATIC 4 OF 5

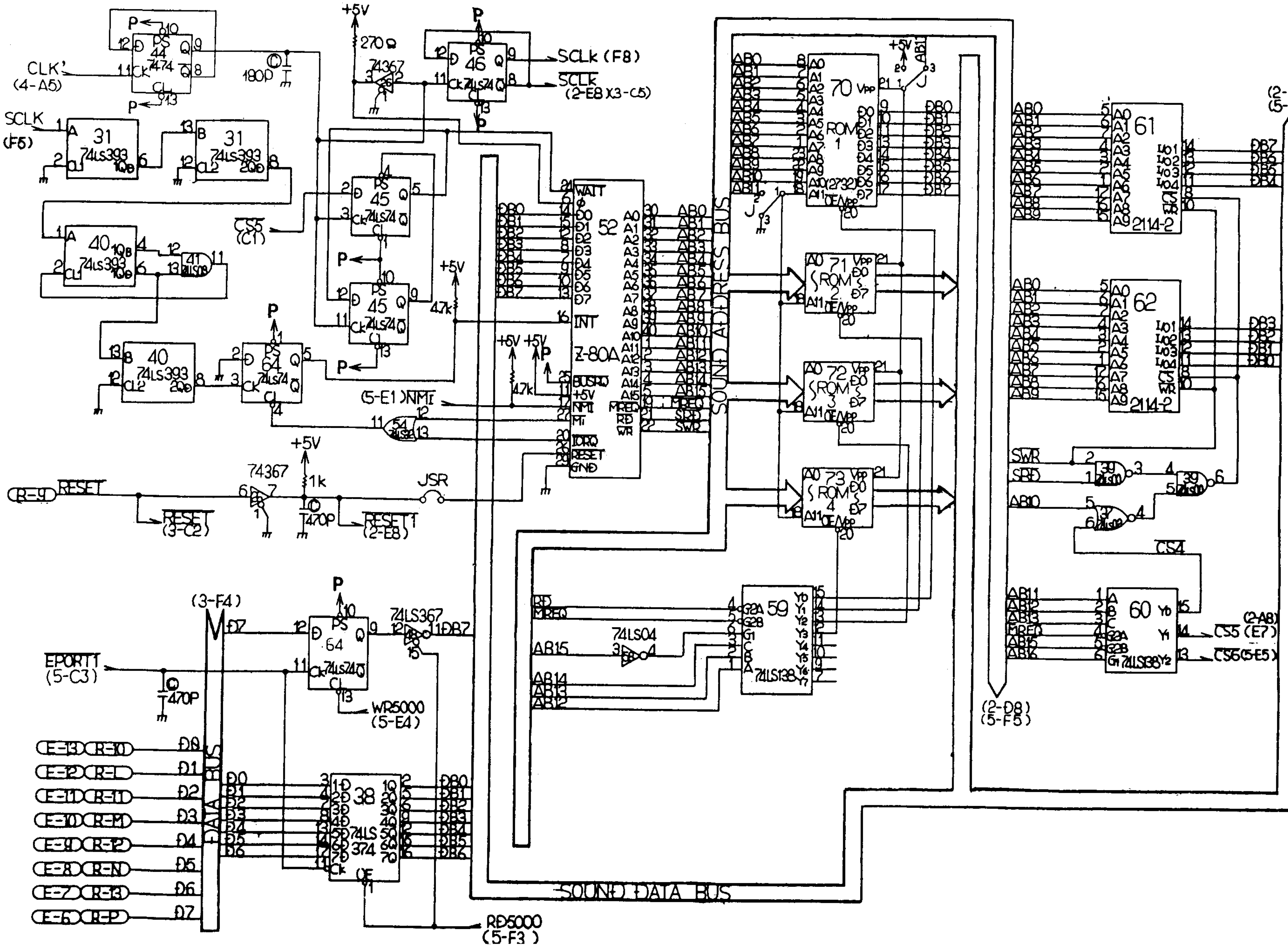
FIGURE 29





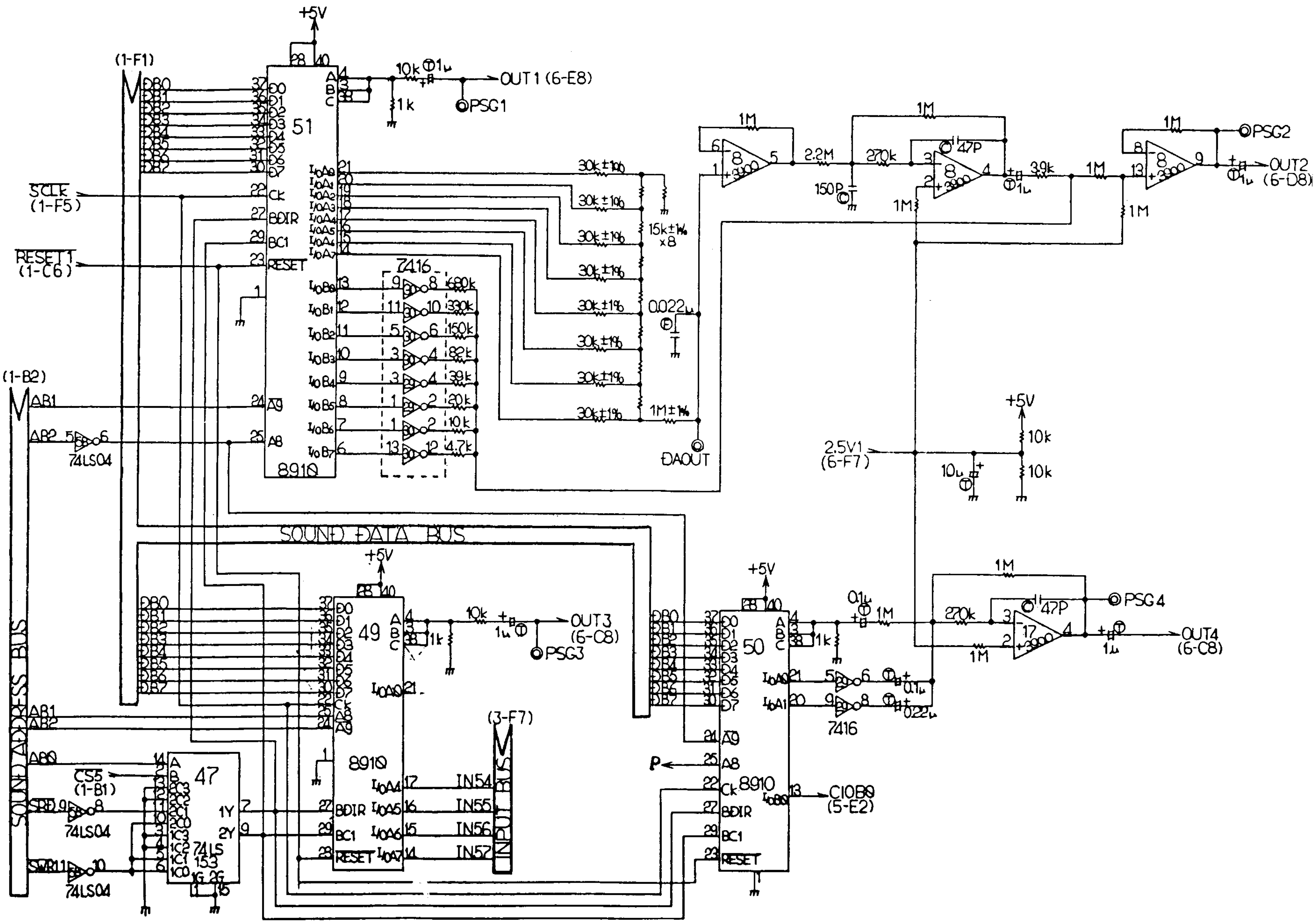
VIDEO PC BOARD SCHEMATIC 5 OF 5

FIGURE 30



GAME PC BOARD SCHEMATIC 1 OF 6

FIGURE 31



GAME PC BOARD SCHEMATIC 2 OF 6

FIGURE 32

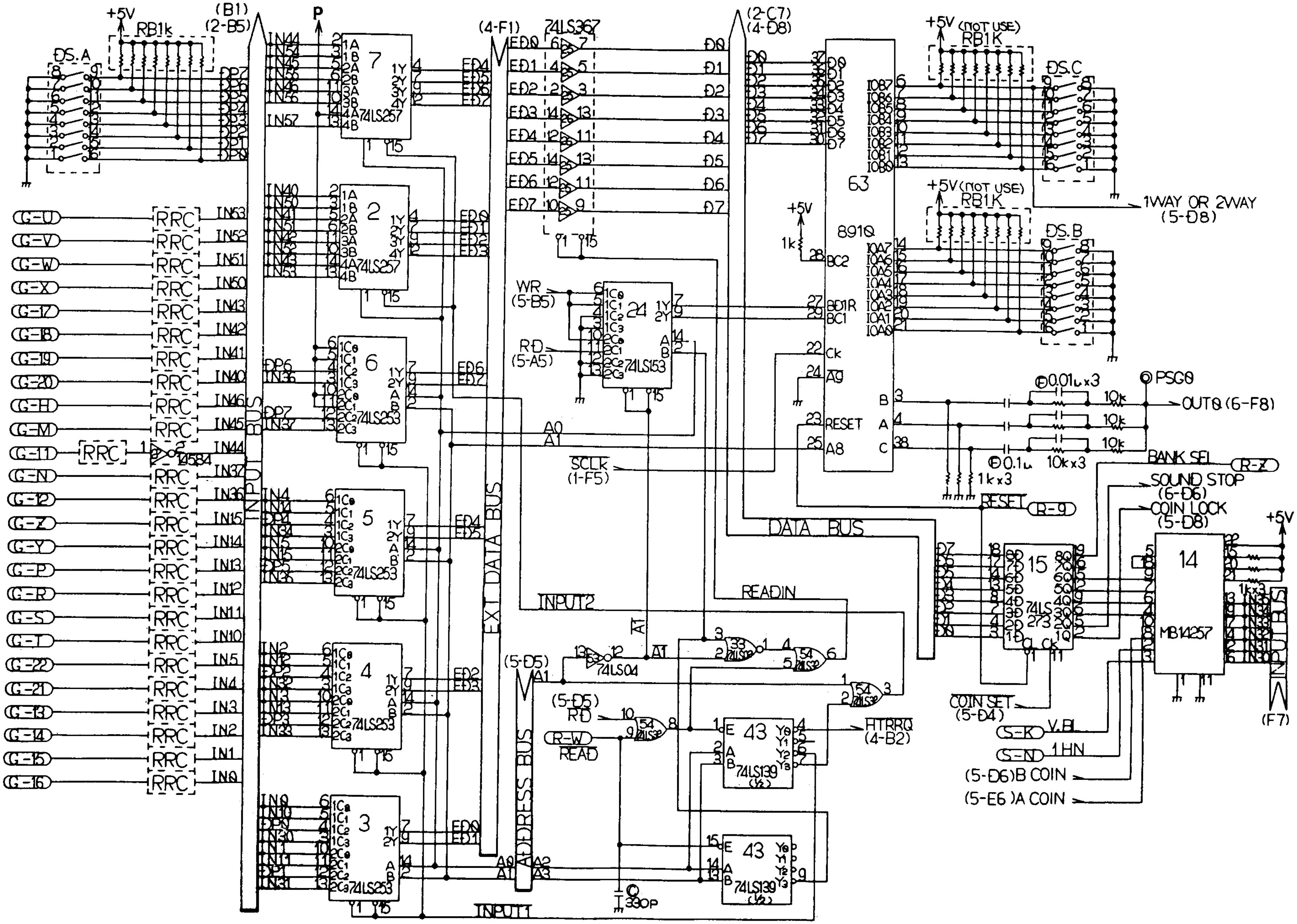
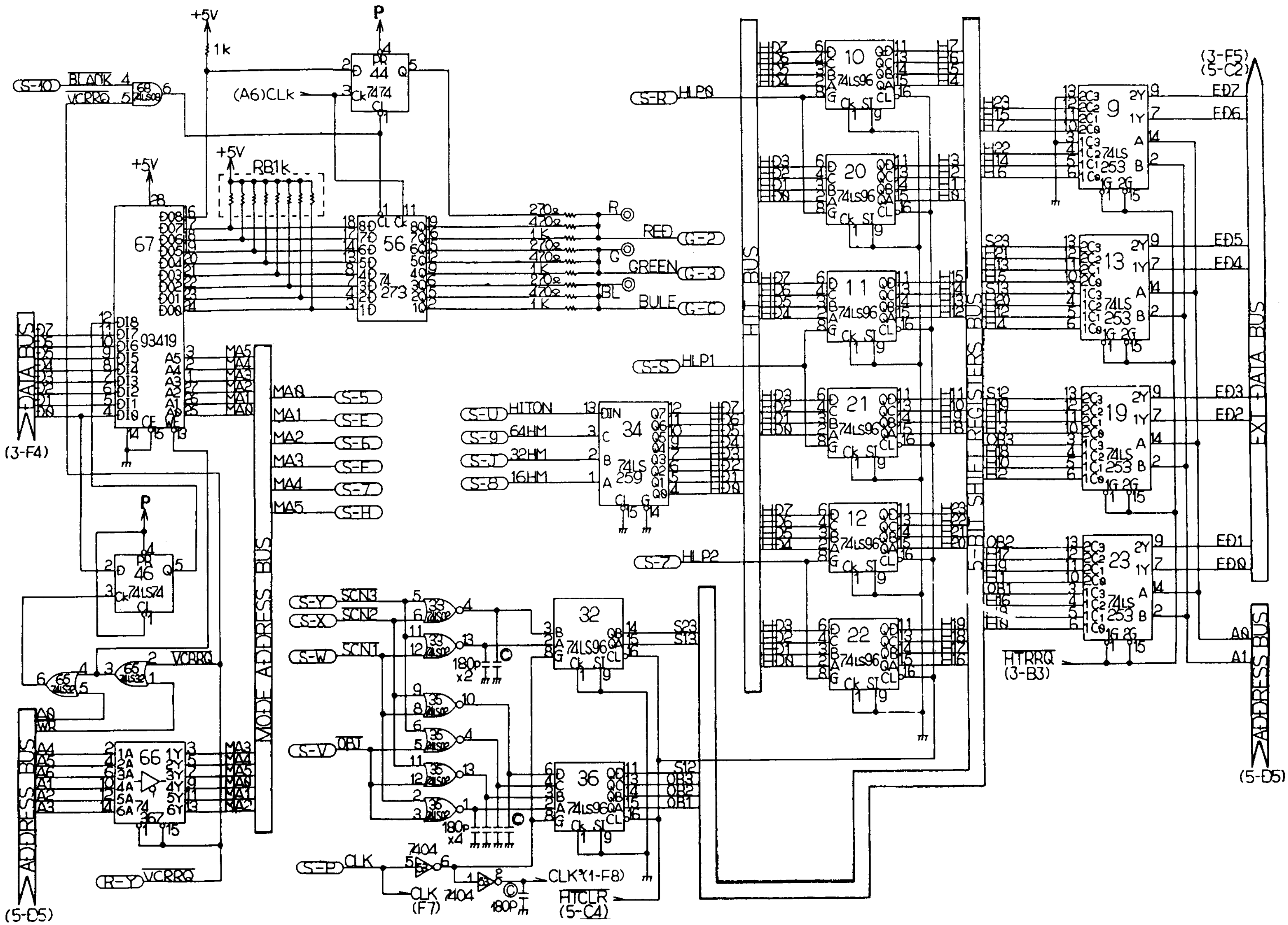


FIGURE 33

GAME PC BOARD SCHEMATIC 3 OF 6

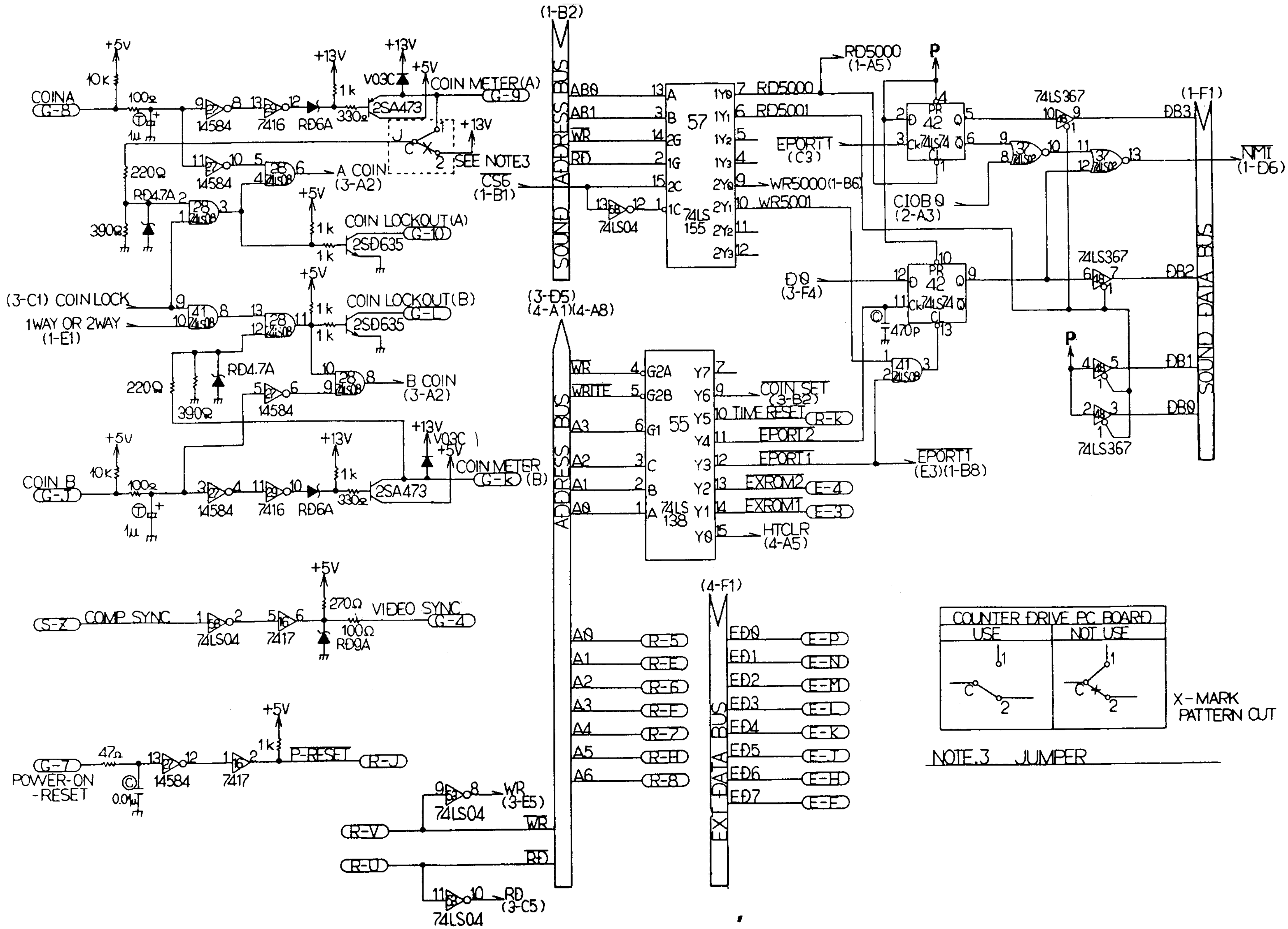
GAME PC BOARD SCHEMATIC 4 OF 6

FIGURE 34



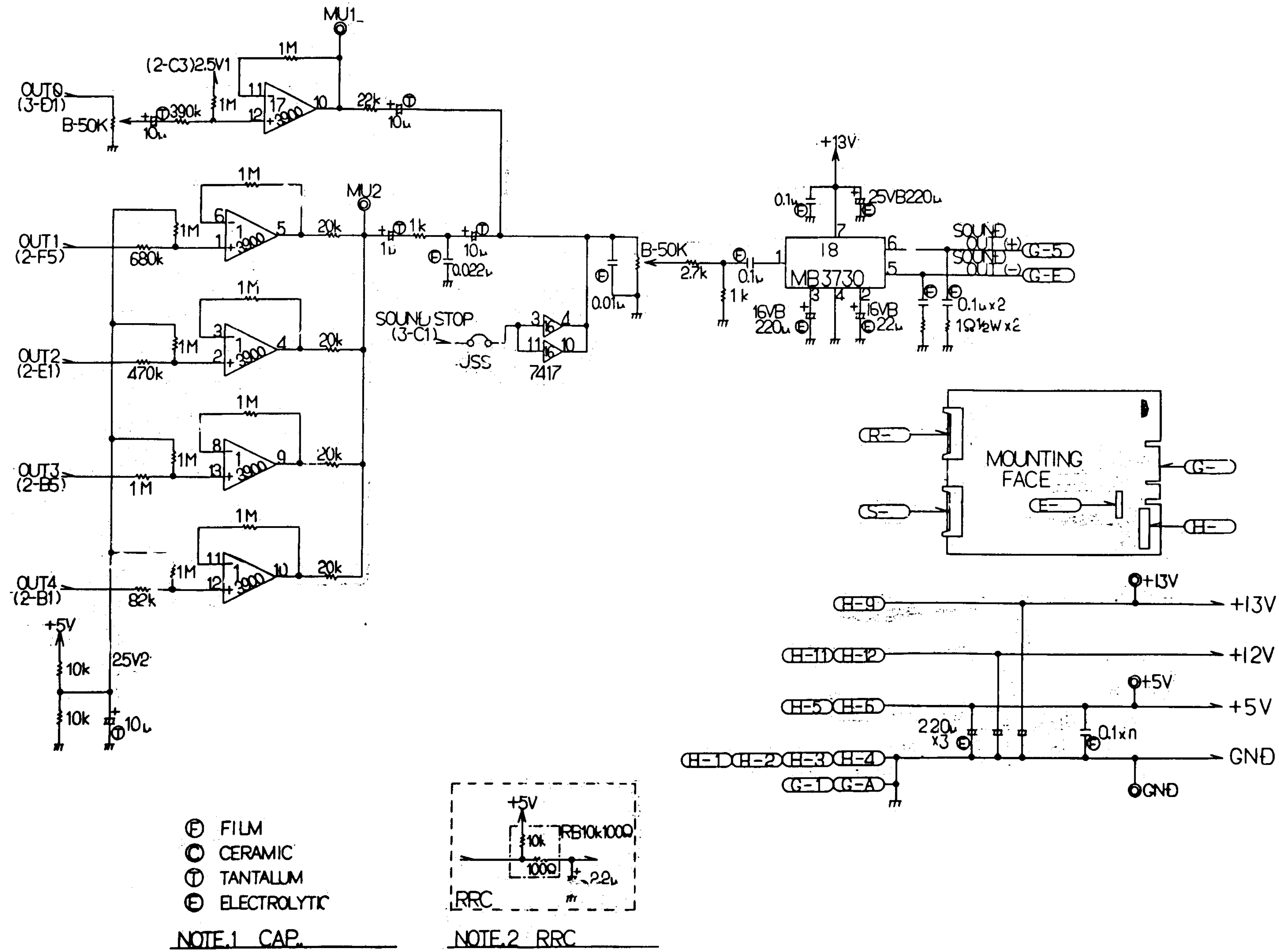
GAME PC BOARD SCHEMATIC 5 OF 6

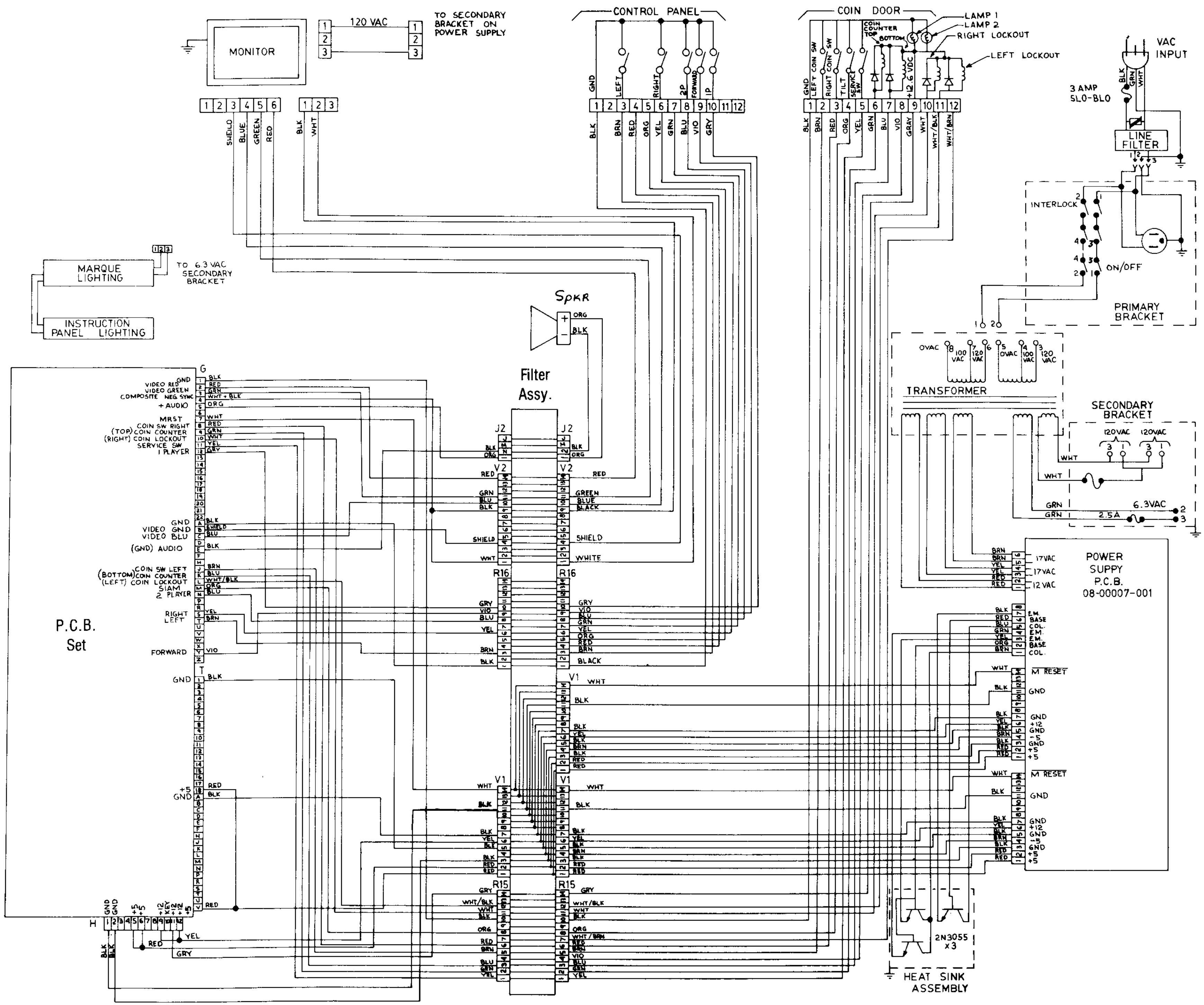
FIGURE 35



GAME PC BOARD SCHEMATIC 6 OF 6

FIGURE 36





WIRING DIAGRAM
FIGURE 37